

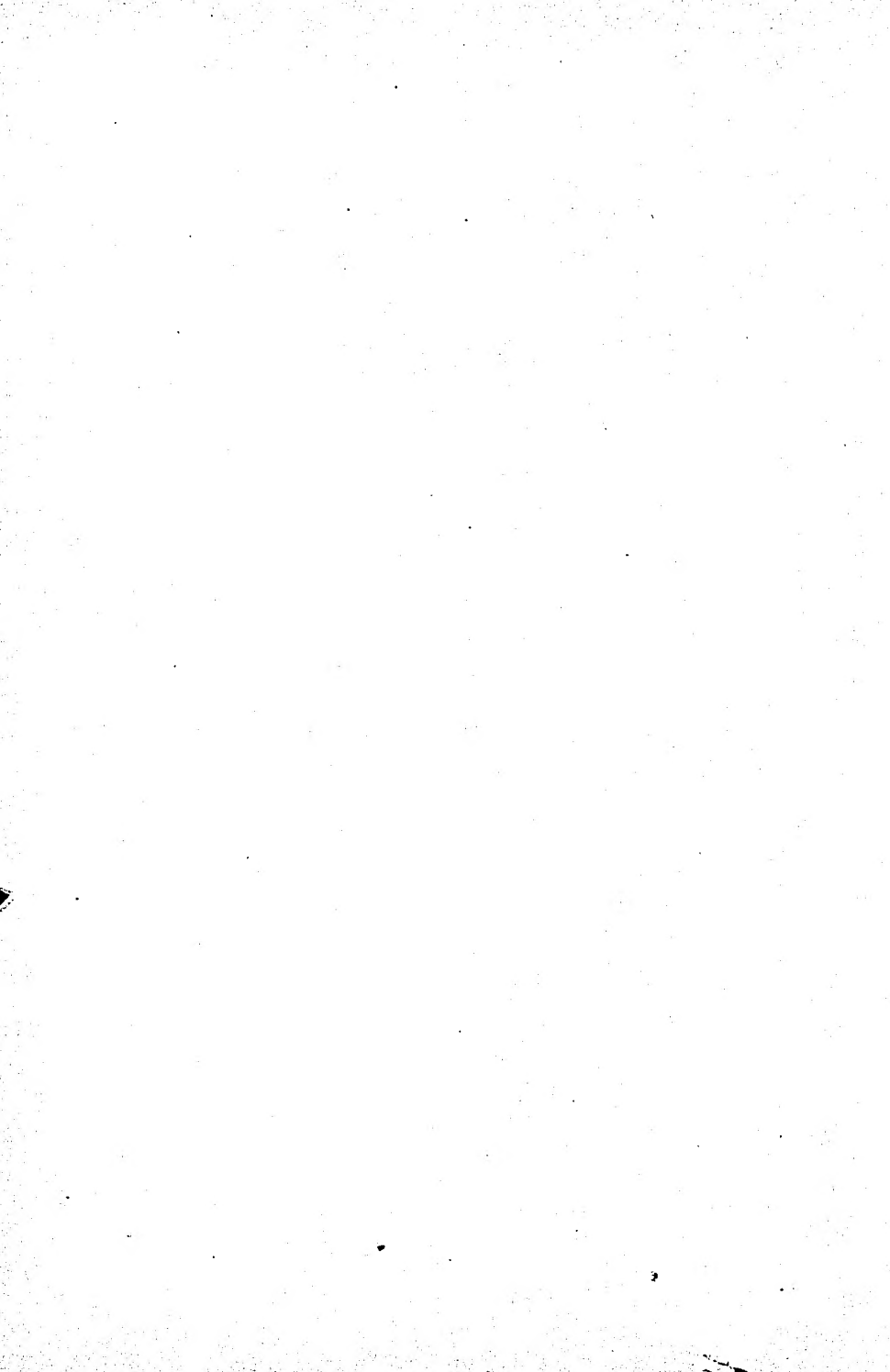
The Agricultural Resources of Canada.

REPORTS
OF
TENANT FARMERS' DELEGATES
AND OTHER INFORMATION
ON
MANITOBA, NORTH-WEST TERRITORY
AND OTHER PARTS OF THE
DOMINION OF CANADA
AS A
FIELD FOR THE SETTLEMENT OF AGRICULTURALISTS AND OTHERS.



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1881





DOMINION OF CANADA.

The Territory comprised in the Dominion of Canada contains about 3,500,000 square miles, extending from the Atlantic to the Pacific Ocean, and at its southern point reaching the 44th parallel of latitude. It possesses thousands of square miles of the finest forests on the continent; widely-spread coal fields; extensive and productive fisheries; rivers and lakes among the largest and most remarkable in the world, and the millions of acres of prairie lands in the newly opened-up North-West territories are reported as being among the most fertile on the continent of America.

Canada is divided into seven provinces, as below:—

| | Square Miles. |
|---|--------------------|
| 1. Quebec..... | containing 193,355 |
| 2. Ontario..... | " 107,780 |
| 3. Nova Scotia..... | " 21,731 |
| 4. New Brunswick..... | " 27,322 |
| 5. Prince Edward's Island..... | " 2,134 |
| 6. British Columbia..... | " 213,550 |
| 7. Manitoba and the North-West Territory..... | " 2,750,000 |

The several provinces have local legislatures, and the seat of the Dominion or Federal Parliament is at Ottawa. The Government is conducted on the same principle as that of Great Britain, viz., the responsibility of the Ministers to Parliament.

The Governor-General of the Dominion is appointed by the Queen, and the Lieutenant-Governors of the Provinces by the Governor-General in Council.

Each province is divided into counties and townships, having their own local boards and councils for regulating local taxation for roads, schools, and other municipal purposes.

Religious liberty prevails.

Education. The educational system is under the control of the various provinces. Free schools are provided, and facilities are afforded to successful pupils for obtaining the highest education.

Population. The population at the census of 1881 is given in the unrevised statement as 4,352,080 against 3,686,596 in 1871, and having an increase in the decade of 665,484.

Militia. The militia consists of two forces, the active and reserve, the strength of the former being fixed by law at 40,000 (service in which is voluntary), and the latter at 600,000, all male British subjects between the ages of 18 and 60, not exempted or disqualified by law, being liable to be called upon to serve in cases of emergency.

The active Militia is clothed, armed with breech loaders, and equipped, ready to take the field at short notice. The force is commanded by a General Officer of the English Army.

Infantry schools are established at Toronto, Kingston, Montreal, Quebec, Fredericton, and Halifax, at which Officers can obtain certificates. There is also a Military College for the education of cadets, with a four years' course of study, at Kingston.

Trade. The following figures show the imports and exports for the fiscal year ending 30th June 1880, and also the value of the exports to, and imports from, the United Kingdom during the same period.

| | |
|-----------------------|--------------|
| Value of imports..... | \$86,489,747 |
| Value of exports..... | 87,911,458 |

An examination of these figures, compared with those of the United States, shows that the imports of Canada from Great Britain, in proportion to the population, represent 38s. per head as against 7s. per head in the United States.

Climate. In a country like the Dominion of Canada, extending northward from the 44° of latitude, the climate is naturally variable, but, speaking generally, the summers are hotter than in England, and the winters colder. However, if the climate of a country is to be measured by its productions, then Canada, in the quality of her timber, grains, fruits, plants, and animals, must be accorded a front rank.

The extremes of cold, though of short duration, and the winter covering of snow, have given Canada the reputation of having an extremely severe climate, and attention has not been sufficiently directed to the circumstance that by the warmth of the summer months the range of production is extended, in grain, from oats and barley to wheat and maize; in fruits, from apples to peaches, grapes,

melons, nectarines, and apricots; in vegetables, from turnips, carrots, and cabbages, to the egg plant and tomatoes.

Snow and ice are no drawback to the Canadian winter. To Canada they mean not only protection to her cultivated acres, almost as valuable as a covering of manure, but the conversion of whole acres, during several months in the year, to a surface upon which every man may make his own road, equal to a turnpike, in any direction, over swamp or field, lake or river, and on which millions of tons are annually transported at the minimum cost, whereby employment is afforded for man and horse when cultivation is arrested by frost.

Intensity of winter cold has little effect upon the agriculture of a country except the beneficial one of pulverising the soil where exposed. High spring and summer temperatures, with abundance of rain, secure the certain ripening of maize and the melon in Canada.

The difference between the mean annual temperature of the Atlantic and Pacific coasts of Canada for the same latitude is very great, that for the latter being much higher, and thus wheat is raised with profit in lat. 60° N., long. $122^{\circ} 31'$ W. In Manitoba in lat. $49^{\circ} 30'$ N., long. $97^{\circ} 30'$ W., wheat is sown in May, and reaped the latter end of August, after an interval of 120 days.

The great prairie region of Canada has a mean summer temperature of 65° , with abundance of rain; the winters cold and dry; climate and soil similar to that part of Russia where large cities are found. It is free from pulmonary complaints and fevers of every type, and the country generally is healthy.

The snow fall in the west and south-west parts of the territories is comparatively light, and cattle may remain in the open air all winter subsisting on the prairie grasses, which they obtain by scraping away the snow where necessary.

There are nearly 7,000 miles of railway in operation in the Dominion, extending from the western portions of Ontario to Halifax, in Nova Scotia, and St. John in New Brunswick, while its rivers and lakes form a highway during the summer months from the interior of the ocean.

Means of communication.

It may be mentioned that Canada possesses the most perfect system of inland navigation in the world. At the present time vessels of 600 tons go from Chicago to Montreal by way of Lakes Michigan, Huron, Erie, Ontario, and the River St. Lawrence, a distance of 1,261 miles. The locks on the Welland Canal (connecting Lakes Erie and Ontario), and those on the St. Lawrence River, are, however, in course of enlargement to 270 feet long and 45 feet wide, with a depth of 13 feet, and when this great work is completed, steamers of 1,500 tons burthen will be

able to carry produce direct from Western Canada, and the Western States of America, to Montreal and Quebec, which will effect a further reduction in the costs of transit of cereals and other products.

The distance from Chicago to Montreal (where ocean-going steamers of 5,000 tons can be moored alongside the quays) by the Canadian route, is 150 miles less than from Chicago to New York, *via* Buffalo and the Erie Canal, and there are 16 more locks and 89½ feet more lockage by the latter route than by the former. It is, therefore, expected that, upon the completion of the enlarged canals, within two years, much of the grain from Western Canada, as well as from the Western States of America, will find its way to Europe, *via* Montreal, as, in addition, to its other advantages, the distance from Montreal to Liverpool is about 300 miles less than from New York.

Postal and
telegraph
arrangements

Classes of
emigrants.

Canada possesses excellent postal arrangements, a post office being found in almost every village, and every place of any importance is connected with the electric telegraph.

The classes which may be recommended to emigrate to Canada are as follows :

1. Tenant farmers in the United Kingdom, who have sufficient capital to enable them to settle on farms, may be advised to go with safety, and with the certainty of doing well. The same remark may apply to any persons who, although not agriculturists, would be able to adapt themselves to agricultural pursuits, and who have sufficient means to enable them to take up farms.
2. Produce farmers, and persons with capital seeking investment.
3. Male and female farm labourers, female domestic servants (to whom assisted passages are granted), and mechanics.

The classes which should be warned against emigration are females above the grade of servants, clerks, shopmen, and persons having no particular trade or calling, and unaccustomed to manual labour. To these Canada offers but little encouragement.

Assisted passages are offered by the Government of Canada to Agriculturists, mechanics and their families, and to domestic servants. The present rate from London, Liverpool, Glasgow, Derry and Queenstown to Quebec, is £5 per adult for the former, children under twelve, going at half rates, and for the latter £4 each. There is a Government agent with a staff of assistants at Quebec, who will meet each ship and be prepared to give any information and advice that may be required.

Time to emi-
grate.

The best time to arrive in North America is early in May, when the inland navigation is open, and out-door operations are commencing. The emigrant will then be

able to take advantage of the spring and summer work, and to get settled before the winter sets in.

The voyage to Quebec occupies, on an average, about ten days by steamer, and the journey to the North-West four days longer. Time of transit.

It is now proposed to offer a few remarks on each of the different provinces of which the Dominion of Canada is composed.

MANITOBA AND THE NORTH-WEST TERRITORIES.

The country now known as Manitoba and the North-West Territories was granted by charter to the Hudson's Bay Company, in 1670, during the reign of Charles II, as a hunting and trading ground, and was held by them and the North West Company (these two corporations amalgamated in 1821), until 1870, when their rights were transferred to the Dominion. These facts form an intelligible reason why this part of the country has only recently become known as an agricultural region, for the disturbance of the lands would naturally have led to the interruption of the staple trade of the company which controlled it for so many years. Manitoba and the North-West Territories.

Manitoba, a province which has been made out of the North-West Territories, is situated in the very heart of the continent of America. It contains many millions of acres of land. Extent of Manitoba and the North-West Territories.

Roughly speaking, the North-West Territories belonging to Canada cover about 2,500,000 square miles and contain about 200,000,000 acres of fertile land which are now waiting settlement.

The following statistics were prepared by Mr. Malcolm McLeod, son of the late Chief Trader, John McLeod, of the Hudson's Bay Company, and will give some idea of the extent of this part of Canada, and the different areas into which it may be classified.

WHEAT AREA.

Sq. Miles.

1. General boundaries: from Lac Seul (say long. 92° W., lat. 50° N.) to the foot of Rocky Mountains in lat. 60° N.; thence along base of Rocky Mountains to the south bend of Mouse river; thence to the Lake of the Woods, lat. 49° N.; thence along Rainy river, and thence to Lac Seul. This area, embracing Manitoba, unbroken by mountains or rocks to any material extent, with streams and small lakes which but fertilize, may be stated at. 320,000

| | |
|---|--------|
| 2. Beyond it, northwards, are also areas of rich vegetable mould (<i>humus</i>), on warm Silurian and Devonian bases, and with marly clays of the utmost fertility..... | 50,000 |
|---|--------|

VEGETABLE, GRASS, AND TIMBER AREA.

| | |
|--|---------|
| 3. Hudson's Bay basin (portion Silurian, so far as known and fairly predicable) east side (east of meridian 80° W.) 100,000 square miles. West side (W. of meridian 80° W.) 300,000 square miles..... | 400,000 |
| 4. Winnipeg basin, east side, from English river to Nelson river..... | 80,000 |
| 5. Beaver river (middle and lower parts)..... | 50,000 |
| 6. Methy lake and river and Clear Water river, and Athabaska river, from Clear Water river, to Athabaska lake, east side..... | 30,000 |
| 7. West of McKenzie river (Devonian, with coal measures) to wheat line as above stated, and from Fort Chipewyan, Lake Athabaska, to Fort Resolution on Great Slave lake, say, from lat. 58° to 61° N. | 10,000 |
| 8. East side of Mackenzie river to Fort Good Hope, or say lat. 68° N..... | 100,000 |
| 9. West of the Mackenzie river from lat. 61° N., northwards, to America (late Russian) boundary, along 141° W. and American Pacific shore strip, viz., all north of lat. 60° N., except area No. 5 aforesaid | 160,000 |
| 10. Rocky Mountain eastern slope, beyond wheat line | 30,000 |
| 11. Outlying areas, amongst others the extensive but undefined ones between the Hudson's Bay Silurian and northern rivers of the St. Lawrence valley; say from Lake Mistassimi to Lake Nepigon | 100,000 |
| 12. Add also, the by some called "American desert" of our latitudes; say, between lats. 49° and 50° N., where maize thrives and buffaloes fatten—a favourite Indian hunting ground..... | 40,000 |

Total area1,370,000

The barley area of the above may be stated at two thirds.

| | |
|---|-----------|
| 13. The rest of our north-west and Rupert's Land territory, including the immense "barren grounds" of our Laurentian system, and the Labrador Rocks of eastern Rupert's Land, and the great wilds and islands of the Arctic, estimated at another million square miles..... | 1,000,000 |
|---|-----------|

Total2,370,000

Any male or female who is the head of a family; or any person who has attained the age of 18 years, can obtain a free grant of a quarter section of 160 acres; and can also make an entry for pre-emption rights to the adjoining quarter section, at the Government price ranging from \$1 per acre upwards. Free grants of land, Manitoba and the North-West Territories.

The official regulations of the Canadian Government, for the disposal of certain public lands along the route of the Canadian Pacific Railway, in Manitoba and the North-West Territory, will be found elsewhere. — Railway lands

It may be explained that a township consists of a tract of land six miles square, which is divided into 36 sections of one square mile each.

Intending settlers should go at once to the land office in the district where they intend to settle, and guides will be sent with them, free of charge, to point out vacant lands available for settlement. Guides.

The following is the amount of capital considered necessary for a man with a family to start farming on a free grant of prairie land. It has been compiled from various works that have been published on Manitoba and the North-West Territory, and may be accepted as reliable:— Capital required.

Provisions for one year, \$200; One yoke of oxen, 130; One cow, 30; One waggon, 80; Breaking plough and harrow, 30; Chains, shovels, spades, hooks, &c., 20; Cooking stove and furniture, 30; Seeds, 20; Building contingencies, &c., 60. In all \$600 or £120.

A family might settle for a less sum by further restricting itself. A Red River cart might be used, costing \$15, instead of a waggon of \$80, and so on. Families have settled, having even less capital than \$400, or about £80 stg.

It is of course based upon the assumption that all payments for goods are to be made on delivery, but as a settler could obtain many of his requirements on credit until such time as his first crops are harvested, it is fair to assume that a much lower sum than that named above would really suffice, especially as a settler and his family who have not much capital would be able to command a good price for their own labour during harvest time, and thus add to their capital until they have a sufficient quantity of their own land under cultivation to keep them fully occupied. Families of labourers have actually settled on land from savings from their earnings.

It may be added that an energetic man landing in Canada with only a pound or two in his pocket is able to look at the future cheerfully. Many such men have taken up the free grants, and then have hired themselves out to labour, cultivating their own land during spare time, and

employing a man at harvest or when necessary. By this means they are able to stock and cultivate their farms in a few years, with the results of their own labour and the profits of their harvests, and there are many men in Canada now in positions of independence who commenced in the way above described.

It will be understood that the figures named above do not include the passage of the settler and his family from England to Manitoba and the North-West. The fare from Liverpool to Winnipeg (steerage and third class railways) is 9*l*. 10*s*. per adult.

For the sea passage, children over ten years are considered as adults, those from one to eight years old are charged at half fare, and infants under one year one guinea. On the railways children between five and twelve are charged at half fare, and those under five years free.

The intermediate or second class passage to Winnipeg ranges from 12*l*. 13*s*. to 14*l*. 3*s*., while the saloon rate is from 22*l*. to 28*l*.

Cost of breaking up land.

The cost of breaking up the prairie land is estimated at three dollars per acre, and the ploughing, sowing, harvesting, and threshing, the second year, four dollars per acre.

Improved farms

Improved farms can be purchased from 1*l*. per acre upwards.

Fuel.

There is not so much woodland in the prairie district as in other parts of Canada, but there is enough for the purposes of fuel and fencing, and timber for building purposes can be purchased in the larger towns and settlements.

Canadian Pacific Railway.

This line of railway, which is to connect the Atlantic and Pacific Oceans, is now in course of construction, and is expected to cost from 75 to 80 millions of dollars. 260 miles of the line are now in operation. This will be increased to 360 miles in 1881, and in 1882 over 700 miles will be open, extending from Lake Superior through Manitoba and westward through the Territories to near Fort Ellice, thus effecting a saving in the distance from Manitoba and the North-West Territory to the ports of shipment for Europe of about 400 miles, as compared with the existing route from the Western States of America, *via* New York. This railway will pass through extensive coal fields, which will ensure an unlimited supply of fuel.

Routes and internal communication.

It may be mentioned that there are two routes by which an intending settler can reach Manitoba from Quebec, or any other Canadian port, namely, the "all rail route," *via* Detroit, Chicago, and St. Paul to Winnipeg, or by what is called the Lake route, *i. e.*, by railway to Sarnia or Collingwood on Lake Huron, thence by steamer to Duluth on Lake Superior, and by rail from Duluth to Winnipeg. The journey by the former route is quicker by about a day, but the latter is more economical. By either of these routes

the settler will be met by the agents of American land and railway companies, who will endeavour to persuade settlement in the United States as preferable to Canada; but the settler is advised to proceed direct to his intended destination, and decide upon his location after personal inspection. In 1882 a line of railway will be completed from Thunder Bay (Lake Superior) to Winnipeg and westward. It will pass entirely through Canadian Territory, and its benefits both to new and old settlers will be very great. It may be added that most of the rivers and lakes in Manitoba and the North-West are navigable, and that steamers now ply during the season on the river Saskatchewan between Winnipeg and Edmonton, a distance by water of about 1,200 miles, with passengers and freight, calling at Prince Albert, Carlton, Battleford, and other places on the way. Steamers also run regularly between Winnipeg, St. Vincent, and other places on the Red River. There is also steam communication on the river Assiniboine between Fort Ellice and Winnipeg.

Manitoba is situated in the middle of the continent, ^{Climate} nearly equidistant from the pole and the equator, and the Atlantic and Pacific oceans. The climate gives conditions of decided heat in summer and decided cold in winter. The snow goes away, and ploughing begins in April, which is about the same time as in the older provinces of Canada and the Northern United States on the Atlantic seaboard, and the North-western States of Minnesota and Wisconsin. The crops are harvested in August. The long sunny days of summer bring vegetation of all sorts to rapid maturity. The days are warm and the nights cool.

Autumn begins about the 20th of September and lasts till the end of November, when the regular frosts set in. The winter proper comprises the months of December, January, February and March. Spring comes early in April. The summer months are part of May, June, July, August, and part of September. In winter the thermometer sinks to 30 and sometimes 40 degrees below zero, but this degree of cold in the dry atmosphere of the north-west does not produce any unpleasant sensations. The weather is not felt to be colder than in the province of Quebec, nor so cold as milder winters in climates where the frost, or even a less degree of cold than frost, is accompanied with damp or wind. The testimony is universal, on this point.

Snow does not fall on the prairies to an average greater depth than 18 inches, and buffaloes and horses graze out of doors all winter. They scratch the snow off the prairie, and grow fat upon the grass they find beneath it. Horned cattle also graze out of doors part of the winter, but in some states of the weather they require to be brought in. Instances are, however, stated in which horned cattle have grazed out all the winter.

The following table represents the mean temperature of Winnipeg, Toronto, and Battleford, for each month of the year ending July 1879:

| Months. | Toronto. | Winnipeg. | Battleford. |
|----------------|----------|-----------|-------------|
| August | 66.38 | 67.24 | 67.79 |
| September..... | 58.18 | 52.18 | 47.10 |
| October | 45.84 | 35.84 | 34.52 |
| November | 36.06 | 30.66 | 28.66 |
| December | 25.78 | 11.97 | 6.48 |
| January..... | 22.80 | -6.10 | 0.45 |
| February..... | 22.74 | -12.32 | -10.25 |
| March..... | 28.93 | 14.14 | 16.80 |
| April..... | 40.72 | 39.10 | 46.70 |
| May..... | 51.74 | 53.13 | 53.35 |
| June..... | 61.85 | 63.20 | 60.45 |
| July..... | 67.49 | 63.19 | 63.95 |

It will be noticed that, from Toronto west ward, the temperature rises during the summer months, and as the average yield of wheat per acre in Manitoba and the North West is equally as large (if not larger both in volume and in weight) as in the United States, it would seem that, in conjunction with the fertility of the soil, this temperature is very favourable to cereal crops. The fall of snow is also less in the western portion of the Dominion; in the first half of the year 1876 it was 28½ inches, and in the second half 29½ inches, but the snow is no drawback to the growth of the crops, which are sown in April and May, and harvested in August and September.

Soil.

The soil is a deep-alluvial deposit of unsurpassed richness. It is mostly prairie, and covered with grass. It produces bountiful crops of cereals, grasses, roots, and vegetables. So rich is the soil that wheat has been cropped off the same place for forty years without manure, and without showing signs of exhaustion.

The following extracts from the reports of the English and Scotch farmers selected by the farmers in their respective districts who went out to Canada in 1879, to report upon the country, are interesting and reliable on this subject:

Mr. BIGGAR, The Grange, Dalbeattie.

"As a field for wheat raising, I would much prefer Manitoba to Dakota. The first cost of the land is less, the soil is

deeper and will stand more cropping, the sample of wheat is better, and the produce 5 to 10 bushels per acre more, all of which is profit."

MR. GEORGE COWAN, Annan.

Speaking of Mr. Mackenzie's farm at Burnside, says:—
"I was certainly surprised at the wonderful fertility of the soil, which is a rich black loam, averaging about 18 inches of surface soil, on friable clay subsoil, 5 and 6 feet in depth, beneath which is a thin layer of sand, lying on a stiff clay. The land is quite dry, and is well watered by a fine stream which flows through it."

* * *

"The land between Rapid City and the Assiniboine, which lies to the southward, 25 miles distant, is a nice loam with clay subsoil on top of gravel. I was very highly impressed with the fertility of the soil, some of it being, without exception, the richest I have ever seen, and I have little doubt, it will continue for many years to produce excellent crops, of grain without any manure, and with very little expense in cultivation."

MR. JOHN LOGAN, Earlston, Berwick, says:—

"All the land round the district (Assiniboine) is very good, being four feet deep of black loam, as we saw from a sand pit."

MR. JOHN SNOW, Midlothian.

"Along the Red River and about Winnipeg the soil is very strong black vegetable mould, and I have no doubt most of it would carry paying crops of wheat for 30 years, but it is very flat, and I must say that I like the country better west of Winnipeg, and the furthest point we reached, 150 miles west of Winnipeg, best of all. You have here the Little Saskatchewan River, with fine sloping ground on each side; the soil and what it produced was good, as you will see from the samples of each I now show you. I also show you samples from other parts, and, as I will show you further on, the Americans themselves admit that we have ground better adapted for growing wheat and raising cattle than they have."

* * *

"We saw that a black vegetable mould covered the surface from 18 inches to two, three, or four feet deep."

Mr. ROBERT PEAT, Sillioth, Cumberland.

"Soil.—Contrary to my expectations, instead of finding a wet swamp, as I pictured to my own mind, I found a deep, black, loamy soil, varying in depth from $2\frac{1}{2}$ feet to $3\frac{1}{2}$ feet, and in some places, where it has been cut through on the banks of some rivers, it has been found to the depth of 10 to 12 feet, and is specially adapted for the growing of wheat, being preferred by the millers to almost any other on account of it being so dry and thin skinned. It has been known to grow wheat for many years in succession without manure. If the report was correct, the soil I have sent down to you has grown wheat for 30 years, and the last crop yielded 35 bushels per acre."

Mr. JOHN MAXWELL, Carlisle.

"The soil throughout the country is a rich black loam, 6 inches to 6 feet deep, almost entirely free from stones, and varying in quality in different districts, on a subsoil of strong or friable clay or sand."

Average crops

The average wheat yield in Manitoba and the North-West would appear to range from 20 to 30 bushels per acre and the weight from 60 lbs. to 66 lbs. per bushel. Barley and oats, yield good averages, as also potatoes and other root crops.

The following figures, taken from the reports of the delegates of the English and Scotch tenant farmers, may also be found interesting on this point:—

Mr. JAMES BIGGAR, of the Grange, Dalbeattie, says:—

"We heard very different statements of the yield of wheat, varying from 25 to 40 bushels. McLean, a farmer near Portage, had 1,230 bushels of Fife wheat off 40 acres. Another man, a native of Ross-shire, who was ploughing his own land, told us he had cropped it for 17 years in succession, his last crop yielding 35 bushels per acre. Mr. Ryan, M. P., a good authority, said the average of wheat might safely be taken at 25 to 30 bushels, and of oats 60 bushels..... Next day we drove over Messrs. Riddle's farm; their wheat has averaged fully 30 bushels per acre."

Mr. GEORGE COWAN, Glenluce, Wigtown, says:—

"Mr. Mackenzie's farm is at Burnside, about 9 miles from Portage la Prairie..... He favoured me with his average for the seasons of 1877 and 1878, and his estimate for the present year. Wheat crop, 1877, 41 bushels; 1878, 36 bushels; this year (1879) he expects it to be close on 40 bushels; average weight 60 to 62 lbs.; but he has

grown it as high as 64 lbs. per bushel. Oats last year (1878) he had a yield of 88 bushels from two bushels of seed sown on one acre; this year (1879) his estimate is from 75 to 80 bushels per acre. Mr. M. also grows excellent root crops, his swede turnips averaging 30 to 35 tons; and potatoes, without any care in cultivation, sometimes even not being moulded up, yield between 300 and 400 bushels of 60 lbs. Onions when cultivated are also very prolific, yielding as much as 300 bushels per acre. Mangold also grows very heavy crops, but I did not see any on the ground."

* * * *

"We spent a short time on the farm of Mr. McBeth, and walked over a field which, I was informed, had been continuously under crop 54 years..... I was told it would average 23 or 30 bushels per acre."

MR. R. W. GORDON, Annan.

"Wheat may be safely estimated to yield, with reasonable cultivation, 30 bushels of 60 lbs., and oats 60 bushels of 32 lbs."

MR. LOGAN, Earlstoun.

Speaking of the yield about High Bluff, says:—"The land here has grown wheat for 40 years in succession, yielding from 25 up to 40 bushels per acre. There are not many oats sown here, but the general produce is 70 bushels per acre."

* * * *

"We arrived at Portage on Saturday afternoon.....He told us he had grown good crops at an average of 32 bushels per acre of 60 lbs. weight."

MR. SNOW, Fountain Hall, Midlothian.

"I consider I keep safely within the mark when I say that, taking a good piece of land, it will produce 40 bushels the first year, and an average of 30 bushels for 30 years, without manure."

MR. JOHN MAXWELL, Carlisle.

"I gave an estimate of the cost of wheat crop in Dakota. The same system may be adopted in the Canadian North-West to advantage, as the average yield, so far as can be learned on present information, will be 8 to 10 bushels per acre higher than the yield in Dakota, United States Territory, and every extra bushel produced tends to reduce the first cost per bushel to the producer."

All the other delegates confirm these figures.

Homestead exemption law.

In Manitoba a homestead exemption law was passed in 1872, which exempts from seizure for debt 160 acres of land, house, stables, barns, furniture, tools, farm implements in use, one cow, two oxen, one horse, four sheep, two pigs, and thirty days' provender for same.

Price of labour

Farm labourers can obtain from 30*l.* to 40*l.* a year and board. Female domestic servants, 20*s.* to 24*s.* per month with board. Mechanics earn from 8*s.* to 12*s.* per day. Very much higher wages are sometimes given. Railway navvies in 1881 earned from 7*s.* to 8*s.* per week.

Prices.

The following are the prices of horses, cattle, farming implements, and commodities generally :—

Horses, per pair, about 60*l.*; oxen, per yoke, 26*l.* to 30*l.*; cows, 6*l.* to 7*l.* each. Waggon, 16*l.* to 18*l.* each. Ox cart, 3*l.* to 4*l.* Breaking plough and harrow from 6*l.* to 8*l.* Common ploughs about 3*l.* 12*s.* Reapers, 20*l.* to 30*l.* Mowers, 14*l.* to 25*l.* Spades, 4*s.* 6*d.*, shovels, 5*s.*, hay forks, 3*s.*, manure forks, 4*s.* Beef, 5*d.* to 7*d.* per lb., pork, 5*d.* per lb. Flour, 24*s.* per barrel. Butter, 1*s.* per lb. Eggs, 1*s.* per dozen. Bread, 4½*d.* to 5*d.* per 4 lb. loaf. Salt, 7*d.* to 8*d.* per lb. Potatoes, 1*s.* 9*d.* to 2*s.* per bushel. Tea, 2*s.* to 2*s.* 3*d.* per lb. Sugar, 4*d.* to 6*d.* Coffee, 10*d.* to 1*s.* 6*d.* Tobacco, 2*s.* to 2*s.* 3*d.* Coal oil, 1*s.* 9*d.* per gallon. Pails, three hoop, 1*s.* 3*d.* each. Stout suit of clothing for man, 2*l.* to 3*l.* Felt hats from 4*s.* Boots, 8*s.* to 12*s.* Grey blankets, 8*s.* to 12*s.* per pair.

ONTARIO.

Free grants in Ontario.

Every head of a family can obtain a free grant of 200 acres of land, and any person 18 years of age may obtain 100 acres in the free grant districts. The conditions are :—15 acres in each grant of 100 acres to be cleared and under crop in five years; a habitable house at least 16 feet by 20 built; and residence on the land at least six months in each year. The patent is issued at the end of five years.

Price of lands.

Uncleared lands can also be purchased at prices varying from 2*s.* to 40*s.* per acre.

Cleared and improved farms with buildings can be Improved farms.
bought at from 4*l.* to 10*l.* and £20 per acre, according to position, railway and market facilities, state of buildings, &c., &c., &c. The money can nearly always be paid in instalments covering several years.

The soil of the country varies in different localities, but Soil.
a large proportion is of the very best description for agricultural purposes.

The climate is much the same as in some other part of Climate.
the Dominion, but milder in the winter than in Quebec.

Cereals, grasses, and roots, produce large crops, and fruits grow in great abundance; hemp, tobacco and sugar beet are also profitable crops; maize and tomatoes ripen well, and peaches and grapes come to perfection in the open air.

The province possesses excellent means of communica- Means of com-
tion, both by railways and by water through the lakes, and munication.
the River St. Lawrence, with all parts of the Dominion and to the Atlantic ports.

The public schools are all free and non-sectarian. All Education.
resident children between the ages of 5 and 21 are allowed to attend them.

There are several large cities and towns in this pro- Cities and
vince, among others Toronto, Ottawa, Hamilton, London, towns.
Kingston, &c.

In mineral wealth it has great resources, producing iron, Minerals.
copper, lead, silver, marble, petroleum, salt, &c. Its immense forests of pine timber are well known.

Its principal manufactures are cloth, linen, clothing, Manufactures
leather, furniture, sawn timber, flax, iron and hardware, and exports.
paper, soap, cotton, and woollen goods, steam engines, and locomotives, wooden ware of all descriptions, agricultural implements, &c. Cattle, sheep, and pigs, dairy and agricultural produce are exported largely from this Province, and the trade is increasing rapidly.

The rates of wages for farm labourers are from 40*s.* to 60*s.* per month, with board and lodging; for common labourers from about 3*s.* to 4*s.* 2*d.* a day, without board and lodging, and for female domestic servants from 14*s.* to 24*s.* per month, all found. Good cooks get rather more.

Provisions are much cheaper than in England or in the United States. Beef, veal and mutton are from 3*d.* to 6*d.* per lb.; pork, 4*d.* to 5*d.*; bacon, 6*d.* to 8*d.*; bread (best), 4½*d.* to 5*d.* per 4 lb. loaf; butter (fresh), 1*s.*; salt ditto, 7*d.* to 8*d.* per lb.; potatoes, 1*s.* 9*d.* to 2*s.* per bushel; tea, 2*s.*; sugar (brown), 4*d.* to 4½*d.* per lb.; milk, 3*d.* per quart; beer, 1*s.* 2*d.* to 1*s.* 6*d.* per gallon; and tobacco, 1*s.* to 2*s.* per lb.

QUEBEC.

- Free grants in Quebec.** Upon eight of the great colonization roads, every male colonist and emigrant being 18 years of age may obtain a free grant of 100 acres. The conditions are that at the end of the fourth year a dwelling must have been erected on the land, and 12 acres be under cultivation. Letters Patent are then granted.
- Crown Lands.** Crown lands can also be purchased at 30 cents to 60 cents an acre.
- Homestead law.** The province has a homestead law exempting from seizure, under certain conditions, the property of emigrants.
- Soil.** The soil is of very good quality, and its productions are similar to those of other parts of Canada.
- Mines and fisheries.** Gold, lead, silver, iron, copper, platinum, &c., &c., are found, — but mining in this province is only yet in its infancy. Phosphate mining is becoming an important industry; its value as a fertilizer is recognized in England and France, and large quantities are being exported. The fisheries are abundant, and in 1876, the yield was of the value of \$2,097,677.
- Cities.** The principal cities are Quebec and Montreal, and there are many large towns.
- Wages, prices, manufactures.** The remarks made in the case of the province of Ontario will apply to Quebec also.
- Means of communication.** This is afforded by railways and by the River St. Lawrence. This province contains the two great ports of shipment,—Montreal and Quebec, both of which have extensive wharfrage accommodations, and ocean-going vessels of 4,000 tons can be moored alongside the quays.

NEW BRUNSWICK.

- Free grants, New Brunswick.** A grant of 100 acres may be obtained by any person upon the following conditions:—
- On payment of \$20 cash to aid in construction of roads and hedges, or labour of the value of \$10 per year for three years.
- A house to be built within two years. Ten acres to be cleared and cultivated in three years. Proof of residence on the land.
- Soil and production.** The soil is fertile, and produces all the fruits generally found in England. Wheat averages about 20, barley 29, oats 34, buckwheat 33, rye 20, Indian corn 41, potatoes 226, turnips 456 bushels to the acre. The potatoes and fruits command good prices in the English market.
- Manufactures.** Ship building is one of the staple industries of the province, but its manufactories generally are increasing rapidly and there are manufactories of woollen and cotton

goods, boots and shoes, leather, carriages, wooden ware, paper, soap, hardware, &c., &c.

NOVA SCOTIA.

The quantity of land for disposal in this province is Land in Nova limited. The price is \$44 per hundred acres (about 9*l.*), Scotia. free grants, however, being given to *bona fide* settlers.

The soil produces good crops of cereals and roots, and Soil. large quantities of apples are grown for export.

The value of the fisheries in Nova Scotia in 1876 was Fisheries. upwards of 1,000,000*l.* sterling, consisting of cod-fish, mackerel, haddock, herring, lobsters, &c.

Nova Scotia contains large tracts of woodlands, which produce timber for ship building, and lumber chiefly for export.

Gold, iron, coal and gypsum are found in large quan- Minerals. tities.

There are several railways in the province, giving it Railways. communication with other parts of Canada.

Halifax, which is the chief city of the province, is the winter port of the Dominion. It possesses a fine harbour, and is connected by railways with all parts of the Continent.

PRINCE EDWARD ISLAND.

Most of the lands in this province are taken up, but Price of lands. improved farms can be obtained from about 4*l.* per acre.

This island produces excellent crops of cereals, and is noted for the good quality of its oats. Horses, cattle, and sheep are plentiful, and the country is exceedingly well spoken of as regards the fertility of the soil and its cheapness.

BRITISH COLUMBIA.

This province, which includes Vancouver's Island, is the most western of the provinces which constitute the Domi- General description. nion of Canada, its boundaries being the Rocky Mountains on the east, and the Pacific Ocean on the west.

It possesses many fine harbours, one of which (Burrard Inlet) will probably form the terminus of the Canadian Pacific Railway when completed; and 124 miles of the line in this province are now under contract.

Heads of families, widows, or single men can obtain free Land. grants of land from 160 to 320 acres, according to locality; the fee is about \$7.

Surveyed lands can be purchased at one dollar per acre, payable over two years, and improved farms cost from 1*l.* to 8*l.* per acre.

British Columbia has a large extent of valuable timber land, and productive fisheries, which are increasing in value yearly; gold and coal are also found in large quantities. The yield of gold, from 1858 to 1876, was equal to about forty millions of dollars.

RATES OF PASSAGE.

Rates of
passage.

The following are the rates of passage from Liverpool, London, Glasgow, or Londonderry, to Quebec or Halifax:—
Saloon, 12*l.* to 18*l.* Intermediate, 8*l.* 8*s.* Steerage, 6*l.* 6*s.*
Assisted steerage, 5*l.* for agriculturists, and 4*l.* for domestic servants.

Fares from Liverpool to—

| | Saloon. | Intermediate. | Steerage. |
|--|---|---|-----------|
| Winnipeg, 22 <i>l.</i> to 28 <i>l.</i> | 12 <i>l.</i> 18 <i>s.</i> to 14 <i>l.</i> 3 <i>s.</i> | 9 <i>l.</i> 5 <i>s.</i> to 12 <i>l.</i> 1 <i>s.</i> | |
| Toronto, 14 <i>l.</i> to 19 <i>l.</i> 10 <i>s.</i> | 9 <i>l.</i> 10 <i>s.</i> 6 <i>d.</i> | 7 <i>l.</i> 8 <i>s.</i> 6 <i>d.</i> | |
| Montreal, 12 <i>l.</i> 14 <i>s.</i> 6 <i>d.</i> to 18 <i>l.</i> 14 <i>s.</i> 6 <i>d.</i> | 8 <i>l.</i> 14 <i>s.</i> | 6 <i>l.</i> 12 <i>s.</i> | |
| Ottawa, 13 <i>l.</i> 12 <i>s.</i> 6 <i>d.</i> to 19 <i>l.</i> 10 <i>s.</i> | 9 <i>l.</i> 4 <i>s.</i> 6 <i>d.</i> | 7 <i>l.</i> 2 <i>s.</i> 6 <i>d.</i> | |

Settlers can go to Winnipeg by the all rail route, or by way of the lakes; the latter is the most economical, but takes a day or two longer.

THE REPORT OF MR. J. P. SHELDON,

Professor of Agriculture at the College of Agriculture, Downton, Salisbury.

INTRODUCTORY.

Sailing from Liverpool in the Allan steamship *Peruvian* on the 12th day of August last, I landed in Quebec on the 21st of the same month. I then proceeded by way of Montreal to Ottawa, steaming up the Ottawa river; I afterwards went to Toronto, and from thence, by way of the Great Lakes, to Manitoba, which was the extent of my journey westwards. Returning eastwards, I spent a considerable time in the Province of Ontario, leaving it at last reluctantly. I then proceeded to the Province of Quebec, New Brunswick, Prince Edward Island, and Nova Scotia, and my impressions of each of these will be found later on in this report. Having spent exactly ten weeks in the country, I sailed from Quebec on the 30th of October, and arrived in Liverpool on the 8th day of November.

On this occasion I took passage on the Allan mail boat *Moravian*, and I may now take the opportunity of expressing a high opinion of the great care and skill with which these vessels are navigated, the comfortable and elegant manner in which they are fitted up, the attention which the passengers get from the stewards, the courtesy which they never fail to receive from the officers of the vessels, and of the general cleanliness, neatness, and order which reign everywhere on board.

Going out on the *Peruvian* we had a large number of emigrants as steerage and intermediate passengers; and through the courtesy of Captain Smith, who personally conducted me over the ship, being clearly familiar with every detail of its management, I was enabled to inspect the emigrants' quarters. I wish here to bear testimony to the cleanliness and airiness of the sleeping rooms, to the excellent quality of the food supplied, and to the order, neatness, and discipline which prevailed throughout. To cross the great Atlantic in these boats is, in fact, a much easier, simpler, and pleasanter thing than people think; and if it really is the case that many persons, particularly females, are deterred from going to Canada on account of the voyage, I may here say that there is really nothing formidable in it at all. After a safe and rapid voyage, emigrants and settlers in her Majesty's Canadian Territory will meet with every attention, and receive the most ample instructions, from the agents of the Dominion Government, who are stationed at every necessary place for the purpose of giving assistance to those who need it.

It must be understood that I can only give in this report the unfinished opinions which may reasonably be expected to come of a tour far too limited in time. Opinions, in fact, I shall scarcely venture to give at all, except on certain points on which my information may be regarded as sufficiently definite; for the most part I shall confine myself to impres-

sions, suggesting rather than drawing inferences. Many of the conditions which bear on the agriculture of Canada are so essentially different from those which prevail in the mother country, that dogmatism on the part of a mere traveller would easily develop into egotism; I shall therefore mainly confine myself to descriptions of what I saw, and to recital of what I heard.

It is to be feared that some writers on the agriculture of Canada, who were travellers and not agriculturists, have fallen into the error of expressing opinions of a too definite character; and were it not that I am a farmer by early training, and my subsequent experience until now, I should feel diffident at expressing even my impressions of the various Provinces through which I passed, of the different soils I inspected, and of the diversified systems of husbandry which came under my notice. I made it my business, however, throughout the journey, to see as much as possible with my own eyes, and to obtain the most reliable information within my reach; it is therefore competent for me to draw a picture which, if erring in any particular, will err unintentionally.

The Dominion Government, and the Provincial Legislatures, as well as the agents of the Dominion and private individuals almost everywhere, afforded me every possible facility to see the various sections of the country as thoroughly as circumstances admitted, and I found no means lacking or withheld of ascertaining alike the advantages and disadvantages of the country as a field for the energies and capabilities of Old Country farmers. It is, in fact, easier by far for a stranger to obtain information in Canada than in England or Ireland, for the people are much more communicative, and they spare no pains to give ample opportunity for one travelling as I did to inspect their farms and stock, and the various details of their practice. My tour through Canada has been a singularly pleasant one—made so by the untiring kindness of the people; and interesting, on account of the many striking and beautiful scenes which the country affords.

MANITOBA.

A journey to Manitoba by way of the great Lakes Huron and Superior is full of interest. The scenery in many parts is beautiful; in some it is even grand and majestic. The various ports touched at in Georgian Bay present in some cases scenes of commercial activity beyond what I had expected to find. At Collingwood, for instance, and Owen Sound, there are substantial and thriving towns, with well-built hotels, houses, stores, and public institutions, and the country around and behind them is being rapidly cleared and brought into cultivation. At Owen Sound I had a very pleasant drive of ten or a dozen miles back into the country with Mr. Keogh, who, with marked kindness, hitched up his team to enable me to make the best use of the couple of hours which were at my disposal before the boat started again. We saw many farms on the way, most of which had a progressive air about them; there were also several fine orchards with excellent plums and apples, especially the latter, proving that fruit can be easily and profitably raised midway between the 44th and 45th parallels.

Passing along the northern coast of Lake Superior, I saw some magni-

ficent scenery, chiefly in Thunder Bay and in the Fort William district. The last-mentioned place is at present the Eastern terminus of the Canadian Pacific Railway, a road which is being rapidly built, and which will in due time open up the illimitable resources of the North-West Territory. This road, in fact, is necessary to the colonisation of the North-West. Until it is built, indeed, and until there is a Canadian canal at the Sault Ste. Marie, the produce of the North-West cannot be forwarded to Europe without passing through United-States' territory, unless, indeed the Hudson's Bay route can be made practicable.

The Province of Manitoba, so far as I saw it, is as a rule, flat, wanting in trees, and, consequently, somewhat dreary-looking; but in many parts the land is of striking richness. I was up there in time to see the latter part of the harvesting, and I was certainly struck with the excellent crops of wheat and oats which were grown with the crudest cultivation.

On the day after my arrival, September 3rd, I saw a new string-binder at work in a crop of wheat in the Kildonan settlement, near Winnipeg; it was a very nice even crop, and would average, say, 25 bushels per acre of grain, whose quality was very good: the wheat was the "Scotch Fife" variety, not a heavy headed kind, but it was a nice even crop, the straw rather short and weak, but clear and bright, and the grain was plump, well-fed, bright, and fit for the mill at once. This crop was sown on the 22nd of May, on first prairie sod—that is, on prairie land just then ploughed up for the first time—and as such sod is very tough at first, it may be imagined that the surface of the field was rough, and that the seed had been imperfectly covered; yet the seed was sown and the crop dead ripe within a period of 15 weeks. It is, however, no uncommon thing for wheat to be twice in the bag within 90 days—that is, sown, harvested, and thrashed within that period. I saw also a crop of oats which was sown at intervals, as the land was ploughed, from the 7th to the 17th of June; the oats were the black tartarian variety, and though not ripe when I saw it, I should say the crop would reach 45 bushels per acre. It was a strong, well-headed crop, and the oats promised to be a good sample. This crop, too, was on first prairie sod, on a farm belonging to Mr. Ross, of Winnipeg, but some ten or twelve miles away from the city.

Land increases rapidly in value near to the city. For this selfsame farm Mr. Ross paid 367 dollars; now he wants 3,000 dollars for it. It is 240 acres in extent, and the owner has put up a small house and a building or two on it, besides breaking up about half of the land.

The soil of Manitoba is a purely vegetable loam, black, as ink, and full of organic matter, in some places many feet thick, and resting on the alluvial drift of the Red and Assiniboine Rivers. It is of course extremely rich in the chief elements of plant-food, and cannot easily be exhausted; the farmers know this, so they take all they can out of it in the shortest possible time, and return nothing whatever to it in the form of manure. By turning up an inch or two of fresh soil now and again, the fertility of the surface is renewed, and the same exhaustive system of growing wheat, year by year, may be pursued for a long period with impunity. It is true, in fact, that for several of the first years, at all events, manuring the soil would do much more harm than good; and, until an Act was passed to prevent it, the farmers were in the habit of getting their litter and manure out of the way by sleighing it out on the ice of the frozen rivers

in winter, to be carried away somewhere, when springtime and the floods came, and the ice broke up; now they leave it to rot in heaps outside the stables, and find it an easier task to remove the stable rather than the manure, when the latter becomes unpleasantly plentiful.

In course of time it is probable that the manure will need to be put to its legitimate use of improving an exhausted soil, or maintaining the fertility of a rich one. At a still later period the operation of subsoiling will bring up new earth from below, and there does not appear to be any probability that the better soils of the province will ever become sterile, providing that the farmers make use of the means they will always have at hand for keeping them up to the mark. At present, however, these rich wheat soils do not need improving; they are rich enough for years to come, and in some cases too rich for the welfare of the crop; much of the straw, therefore, is valueless, and really a cumber to the farmer. In the State of Minnesota I saw large quantities of it burnt to get rid of it.

The good prairie soils are known by the dwarf wild rose and the wolf-willow growing on them while still in a state of nature; at all events, the land is at once denoted good where these plants are found, though it is probable that there is good land on which they are not found. But there is a deal of inferior soil in the Province in places; this is chiefly alkaline soil, on which nothing that is profitable will grow in its present condition; in many places, too, the water is alkaline. Yet there is plenty of good water to be got in most places by boring for it, and in some instances a clear pure spring has been struck a very few feet below the surface.

It must not be supposed that the soil of Manitoba is fit only for wheat and oats. The wild grasses, it is true, are very coarse in character, and there are many weeds and worthless plants among them, yet cattle flourish on the immense plains of prairie grass. The "prairie meadows" are generally damp lands, situated near the swamps. "River lots" often stretch four miles back, and are 6, 9, or 12 chains wide, as the case may be; 6 chains at that length enclose 200 acres. The Province is not adapted to grow maize; it is too far north for that, but it will grow garden vegetables very well, and turnips and potatoes, beans and peas, in the fields with complete success, while such "tame" grasses as timothy and the rye grasses, and also red and white clover, grow satisfactorily on land that is at all decently cultivated.

Outside the city of Winnipeg I saw a large market-garden run by a Yorkshireman named Longbottom, in which very large crops of onions, potatoes, carrots, peas, beans, tomatoes, celery, and a hundred other things, were grown in a rough and ready sort of way, but very profitably; there is a good market in Winnipeg for all kinds of garden stuff, and the earliest sorts command very high prices, so that our Yorkshire friend, as I was told on the best authority, is reaping a rich reward of his skill and industry.

I was much surprised to find among the Manitoban farmers one of my old Cirencester pupils. He had bought a farm of some 400 acres a few miles west of Winnipeg, paying, as was thought, the extravagant price of 20 dollars (£4) an acre. He declared, however, to me that he had the best farm in the locality, which may be taken as evidence of his being satisfied with it; and he was growing crops of turnips, potatoes, oats, &c., which were already a theme of conversation in the Province; this was done by

better cultivation than the land of Manitoba is used to, and it is clear that the soil will produce almost any kind of crop in a very satisfactory way, providing it is properly attended to. An yet, how can we expect the rank and file of farmers to cultivate the soil carefully in a country which has such a superb abundance of magnificent land still unoccupied? In time, no doubt, better farming will prevail, and I hope my old pupil will set an example which will be worth extensive imitation; but at present land is too cheap and plentiful to admit of microscopic cultivation as we have it in England and Scotland.

The chief drawbacks in Manitoba, in the estimation of an Englishman, are these: Bad roads, bad water in many parts, the almost utter absence of trees except on the river's banks, the flatness of the country, and the long and severe winter. (And these remarks apply with even greater force to large tracts of country I have seen in the north-western portion of the United States.) No doubt the roads in time will be improved, though road-metal is very scarce; good water will be obtained in most parts of the country by boring for it; this, indeed, is already being done; trees will be planted to break the monotony of the scene, and, so far as the winters are concerned, I am assured by those whose testimony is worthy of all trust, that though the mercury may go to 30° below zero, yet the cold is not intolerable, but rather pleasant and bracing, *because the air is dry*. The flat, low-lying land in the vicinity of Winnipeg has hitherto been much flooded in spring-time, but an extensive and well-executed system of large open drains, which is now being carried out at the cost of the Government, will greatly diminish the evil, if not entirely remove it. There are other districts needing similar treatment, and, as the land is of excellent quality, they will receive attention in due time.

In the city of Winnipeg every household and personal requisite can be bought at not unreasonable rates; and, above all, agricultural tools and machinery of a character superior to the general run of such things in England are everywhere abundant. It is, in fact, one of the sights most suggestive of reflection, to notice at the railway stations here and there, and at the dealers' stores, abundant supplies of labour-saving implements and machinery, which are cheaper, handier, and better made than many English goods. The cost of living is not very high; beef, by the side, in winter is about 7 cents a lb., beefsteaks in summer 15 cents, mutton in winter about 12 cents, and butter about 25 cents the year round. Eggs in winter are 35 cents a dozen.

The great features of Manitoba are: Land of excellent quality, very low in price, and in great abundance, and a climate which brings to perfection in a short time, all kinds of cultivated crops. The value of land is 1 dollar (4s.) to 10 dollars (£2) an acre, away in the country, while near the city, in some cases, it is still higher. Out in the North-West Territory, however, the finest land can be bought at a dollar or less per acre, and actual settlers can obtain free grants of 160 acres for each adult, with a pre-emption right to 160 more on payment of a nominal sum to Government. I cannot, however, recommend English farmers of middle age to go there to settle, because they are entirely unsuited to pioneer life, and would have much to unlearn before they could learn the ways of the country; but young men with small capital and strong hearts and willing hands, even though they have been reared amidst the comforts of an English home, are sure

to prosper in the new territory, providing they are steady and industrious. Being young, they are not too closely wedded to certain habits of life, and they would the more easily habituate themselves to the new conditions which they would encounter in the new country. But whoever may go to Manitoba from the Old Country, will do well to have a good look round before buying land, and, if possible, to pass a few weeks on a farm here and there, with a view of watching the processes on which husbandry is conducted in the North-West; and a man with a small capital and no encumbrances would do well to hire himself out to a farmer for a year or two before locating himself on land of his own. Land may be rented in Manitoba, and probably it would be a wise thing for an English farmer to rent a farm for a year or two, until he has learnt the country and the country's ways, and he will then be the better able to select the right sort of land for himself. Land may be rented as follows: the landlord provides the land and half the seed; the tenant the labour, implements, horses, and half the seed; the landlord receives one-third, and the tenant keeps two thirds of the produce for his share of the business. Mr. Mackenzie, of Burnside, one of the largest and most prosperous farmers in Canada, lets off some of his land in the Portage la Prairie on these terms.

ONTARIO.

Of the southern part of this Province I cannot speak in terms other than of warm praise. Generally speaking, this favoured portion of the Province has a rolling, and, in some parts, almost a hilly surface; in certain localities, as that of Hamilton, for instance, the surface is much broken and almost precipitous here and there, but as a rule the great bulk of the land in this part of the Province, with the exception of rocky or swampy districts, is easily cultivable when it is cleared of timber and the roots are pulled out. Thirty or forty years ago, Ontario must have been a very heavily-wooded district, and the labour of clearing the hundreds and thousands of beautiful farms must have been prodigious; in the district to which these remarks more specially refer, the work of clearing is for the most part done, but there are still many extensive tracts of timberland here and there, and most of the farms have a smaller or greater proportion of uncleared land on them. This land is kept to grow wood for fencing and for fuel.

This portion of Ontario may be regarded as the garden of the Dominion—literally as well as figuratively the garden—for it is there that apples, pears, grapes, peaches, melons, and the like, grow in the greatest profusion, and with the least trouble on the part of the farmer. Every farm has its orchard, and it is purely the farmer's fault if the orchard is not an excellent one, for the climate and the soil are clearly all that can be desired, and the trees will do their share of the work provided the right sorts are planted. It is usual to plant out peach and apple-trees alternately and in rows in a new orchard, and the apple-trees are at a distance apart which will be right when they are full-grown; this is done because the peach-trees come to maturity first, and have done bearing before the apple-trees require all the room; the peach-trees are then cut down and the apple-trees occupy all the room. These trees are planted in rows at

right angles, so that there is a clear passage between them whichever way we look, and the land can be freely cultivated among them; it is, in fact, usual to take crops of wheat, or oats, or maize, from the land during the time the trees are young, and we often see fine crops of golden grain overtopped by noble young trees laden with fruit. A farmer may not, of course, look to fruit alone to grow rich on, but he often nets a nice roll of dollars out of it, and, to say the least, it is conducive to happiness to be well supplied with fruit, while to live in a climate and on a soil that will produce it abundantly is always desirable.

There are many kinds of soil in this part of the Province, most of which are fertile and easy to cultivate. The most common soils are loams of one kind or another, comprising all the varieties included in the terms 'sandy' and 'clay' loams; then there are light soils of various kinds, clays, and marsh soils, most of them more or less impregnated with organic matter. Many of these soils—I speak now of farms that have been long under cultivation—were at first well adapted to the growth of wheat, but it appears that in many places ~~wheat~~ has been grown so repeatedly on the land, that it will no longer produce the crops of it that were formerly easy to obtain. The fact is, this one crop has been grown so very often that the land has become deficient in the elements necessary to it; the same land will, however, grow very good crops of other kinds—roots, clover, barley, peas, oats, and the like, while in some parts profitable crops of Indian corn are grown; the latter, however, is also an exhausting crop, even more completely so than wheat, but not so quickly and can only be grown to profit on a rich soil and a hot climate. The difference between the two crops is this: wheat exhausts a soil of certain elements, leaving the rest comparatively untouched; but maize is a generally exhausting crop, less dependent on special elements, but leeding, as it were, on all alike; and so it follows that it can be grown for a longer time before the land shows signs of exhaustion, which at last is so thorough that fertility is restored with great difficulty. There is, however, a great deal of good wheat-land in Ontario, and much more of it to be cleared. The partially-exhausted land, too, will come round again, and will grow wheat profitably as before, but it is only good farming that will bring this about. The farmers of Ontario declare that they would hardly have known what to do with their land if it were not for cheesemaking, and particularly for the new cattle and beef trade with England.

Wheat, wheat, nothing but wheat as a paying crop, was simply exhausting the land, returning nothing to it; cattle-raising paid poorly, because the demand was limited; and cheesemaking could only be profitably carried on in the districts suitable to it. But the demand arising in the Old Country for beef, and the improved means of transportation over the sea, have provided a new and profitable opening towards which the energies of the farmers are being directed. The raising of stock suitable to the English market is now a leading and profitable branch in this part of the Dominion, and it is encouraging to the cultivation of root and green crops, of clover, timothy, and other forage crops, of green corn, &c., for soiling. The growth and consumption of these crops, indeed, is the very practice that was needed to restore fertility to soils which had been injured by over-cropping with wheat. But numbers of the Ontario farmers seem to be so wedded to wheat-raising, that rather than go

extensively into stock-raising and fattening, and the growth of various rotation crops, more after the English and Scotch models, they prefer to sell out and go to Manitoba and the North-West, a territory which is *par excellence* a wheat country, and which must soon become, perhaps, the greatest granary in the world. They are the more inclined in this direction because they can sell their Ontario farms at 40 to 100 dollars an acre, and can buy virgin soil in the North-West at 1 to 10 dollars. By an exchange of this nature they can easily establish their children in separate farms, a thing but few of them could hope to do in Ontario, where land is comparatively high. They have also the spirit of restlessness which permeates the Americans as well, but which is scarcely known in England.

These various influences are causing numbers of farmers to migrate in the direction of the setting sun, and the Americans themselves were never more crazed about the West than are the Canadians of to-day about their Manitoba and North-West Territory. They treat their land as a parcel of schoolboys treat an orchard of apples into which they are suddenly let loose: they rush about from one place to another, plucking an apple here and there, having a nip at it, and throwing it down, only to repeat the process at every tree they come to thinking in this way to find the best fruit in the orchard. So it is with the Canadian and American farmer of the West. His farm is a mere machine, out of which he gets all the work he can in the least possible time, and he quits it for another, as his fancy suggests. It is of second or third-rate importance to him, for he can buy land on the Western prairies at a less cost than that of putting the first crop into it; and the affection with which an Englishman regards his farm, and the home of his childhood, is a factor at present almost unknown in the social life of our friends across the Atlantic.

In time this will change in Canada, and in England the old ties are rapidly weakening. It is well, or, rather, would be well, if English landlords would note this change of feeling, this loosening of the Old World sentiment, this infiltration of new ideas, which are surely and not slowly, permeating the rank and file of British farmers. Steam has made the whole world a possible market for the products of any single portion of it, and, along with education, is making the people everywhere cosmopolitan in thought and feeling. To him who travels these things are clear, and I repeat that it would be well if those in power would recognise them without delay.

As a dairying country some portions of both Western and Eastern Ontario are clearly well adapted. The chief want of the country in this connection is that of streams, and springs, and running brooks; the smaller streams, in fact, are either less numerous than they were before the forests were cut away, or they are dry at the time when they are most wanted. But the Belleville district, in Eastern Ontario, where there is indeed a great deal of excellent land, and the Ingersoll and Stratford districts, in the western portion of the Province, with many others here and there, are producing excellent cheese in the factories. It would appear, in fact, that wherever water for stock is available, dairy-farming in Ontario may be made a profitable business. The lack of water on some of the farms could without much difficulty, I should say, be made up by providing it in artificial meres and ponds, a practice which is common in

many parts of England. The Canadian farmers, as a rule, are alert on questions which affect their interests, though less so than the Americans are, and that this water question, all-important as it is to dairy-farming and stock-raising, will in due time receive the attention it demands, is, I think, a point which may safely be predicted.

The Canadian dairy-farmer has several important advantages over his English contemporary, not the smallest of which is this : he can grow, at a very moderate cost, very large crops of forage for winter use ; clovers and timothy flourish well on most soils in Ontario, and I should say that rye-grasses would also, though I did not find they were much employed, if at all, in the growth of forage ; I think they might be used to advantage. It is also clear, from what I saw in many places, that he can raise abundant crops of swedes and mangels, and very good ones of carrots, parsnips, and the like. Here then, after the question of water, are the first requisites for successful dairy-farming. A rotation of crops is just the system to re-invigorate the older soils of Ontario, which have been over cropped with wheat, and rotation works well in dairy-farming. It is true that good natural pastures are scarce in the Province, if indeed there are any at all which deserve the name from an Englishman's point of view (the best grassland I saw in Ontario was in the neighbourhood of London, and on the way to Hamilton) ; but, as I have said, clovers, &c., grow well, and they will answer capitally for pastures for a year or two, a regular succession of them being provided, and it is a simple matter to produce a large supply of green corn—that is, maize cut before it comes to maturity—for soiling in summer when the pastures run out.

The rotation may be as follows : 1. Wheat or oats ; 2. Roots and green crops for soiling ; 3. Oats or barley, seeded down with artificial grasses ; 4, 5, and, if advisable, 6, Grass for forage and pastures. These rotations admit of endless variation, and in a country where no fossilised restrictions as to cropping exist, as they do in England the farmer can always grow the crops that suits his purpose best. The practice at Bow Park is to sow western corn, which is a luxuriant cropper, thickly, in drills of eighteen or twenty inches wide ; in this way the space between the drills is easily horse-hoed, until the corn is a foot or more high ; the corn grows rapidly, and effectually smothers the weeds and wild grasses which grow vigorously in so forcing a climate. In Canada, as in England, the axiom is true that nothing cleans the soil of weeds so effectually as a heavy cultivated crop of some kind or other. If all the western corn is not wanted for soiling, the balance is cut and stocked while the leaf is still green, and the grain in the milk, and it is left, out in the fields, and fetched in as it is wanted in winter ; in this way it makes very good forage, and the stalks, leaves, and ears are all passed through the chaff-cutter, and all consumed by the stock. A similar system may be followed with almost any other kind of soiling crop—that is, making into forage for winter that portion of it which is not wanted for soiling.

As in the United-States so in Canada, cheese-making has had more attention than butter-making, more skill and investigation have been applied to it, and cheese is consequently ahead of butter in average quality. It is, however, probable that the climate and soil are better adapted for the former than the latter ; a moist, cool climate, and a natural herbage full of delicate and succulent grasses, appear to be best

suited for butter-making; still, it is true that in France, for instance, excellent butter is made where the land is almost wholly under arable cultivation, and the cattle are almost entirely fed on artificial grasses, &c., and grain, a hot climate induces excessive respiration in cows as in other animals, and where this is, there is a larger expenditure of fat from the tissues, and a smaller supply of it to the milk-glands. Be this as it may, however, the cheese of Canada in many cases is very good, while the butter is scarcely of more than second-class quality; but it cannot, at the same time, be denied that the present high quality of the cheese is owing to the adoption of factories some twelve or fifteen years ago.

The same thing indeed may be said of the United States, whose cheese—some of it of high average quality, while some will rank as first-class anywhere—was of a very inferior character before Jesse Williams established the first cheese-factory near Rome, in the State of New-York. It may be mentioned here that at the late International Dairy Fair in New-York, the highest premium was carried off by Canadian cheese. Cheese-factories are already numerous in Canada, while creameries, on a corresponding system for butter-making, are as yet few and far between; and so it follows that cheese is a centralised and butter an isolated manufacture, the one receiving collective and the other individual study and attention. Thus it is that cheese-making is better understood, alike in its principles and practices, than is the case in the sister industry. I must, however, not omit to say that I have tasted several samples of butter in Canada that would be hard to beat in Ireland, and harder still in our London dairy shows.

The most conveniently-arranged and best-equipped cheese-factory I saw in Canada belongs to Mr. Ballantyne, M. P. P.; it is known as the Tavistock factory, and is situated a few miles from Stratford. The milk received daily, at the time of my visit, was about 17,000 lb. from nearly 1000 cows, but this was in the latter part of September. Mr. Ballantyne contracts with his patrons to make the cheese for them at 1½ cent per lb., and the cheese I saw there was of very good quality, well made and carefully cured; the temperature of the curing-room is kept at about 80° for spring cheese, and 75° for summer, and at 65° for rich autumn cheese. The quantity of salt used is 2 to 2½ lb. per 1000 lbs. of milk; the smallest quantity is used when the curd is driest.

Mr. Ballantyne for many years past has paid much attention to the subject of cheese-making, as also have several other prominent dairy-men in Ontario, and their united labours have done much towards raising the cheese of the Dominion in the estimation of buyers in England. Formerly there was great difficulty and uncertainty in making autumn cheese in Ontario; it was liable to be puffy and porous; and, as the whey was not always got well out of it, the flavour was frequently unpleasant. This difficulty has been completely overcome by "ripening" the milk before adding the rennet to it. Mr. Ballantyne thought the matter out in his mind, and argued it to me in this wise: the summer's milk kept through the night is not so deadly cold as the autumn's, and 'so is in a more natural condition; its warmth has brought it into that state which produces the best cheese—that is, it has ripened somewhat, because warmth as well as time is necessary to the ripening of anything. He declares his belief, further, that the best cheese cannot be made from fresh, warm milk; because

though it is of course warm enough, and has never been cold, it has not the required age, and so is unripe. Hence he prefers that one-half of the milk he makes cheese from should be twelve hours old, and this being ripe enough in itself, ripens the fresh morning's milk when the two are mixed together. In summer the ripening of the evening's milk is enough for the purpose, but in the colder weather of autumn it is not, so the morning's and evening's milk are warmed up together to a temperature of 90° or so, and allowed to stand several hours before the rennet is mixed with them for coagulation, and this is done because the autumn's evening milk has been too cold to admit of enough if any ripening. As the mass of milk stands at the temperature named, it ripens, and the difficulty previously so common disappears, the autumn cheese having all the warmth and mellowness of character of the summer cheese, and it is not liable to be injured by the excessive heat of the summer climate; this autumn cheese, in fact, take it for all in all, is probably the best of the season, whereas it was formerly, in many cases, the worst.

The grand principles of the Cheddar system of cheese-making—which, by the way, is probably the best system the world knows—consists in the ripening which the curd gets after separating it from the whey, and before salting and pressing it. This ripening comes of keeping the curd warm, and exposing it to the air. But even in the Cheddar system it is well-known that autumn cheese does not mature like that of summer, and this Mr. Ballantyne declares is owing to the evening's milk of autumn not having a chance to ripen like that of summer. I was pleased to find that Professor Arnold, an able exponent of the Cheddar system, has done much good in Canada in teaching dairymen how to manage floating-curds—that is, by exposing them longer in the vat, and by developing more acidity to checkmate the taint which is common to floating-curds. The milk is generally delivered once a day to the Canadian factories, and the farmers, under pain of having their milk rejected, are required to take proper care of the evening's milk, and to deliver it in good condition at the factory. This done, the transit is supposed to do the milk good rather than harm.

Ingersoll is at once the oldest and most famous of the districts of Ontario in which cheese factories have been established; I was, consequently, interested in looking through a few of the factories near the town, in seeing the neighbourhood, and in attending the cheese market. My visit was made the occasion for calling a meeting of the farmers, factory-men cheese-buyers, and others who happened to be in the town at the time. To Mr. Hatley, a considerable exporter of Canadian cheese to England, I am indebted for the pleasure, interest, and information which this meeting afforded me. A most interesting discussion was the result of it, the subject being chiefly dairy farming. It transpired that some farmers receive as much as 47 dollars per cow for milk sent to the factories during the season, and the farmers were hopeful as to the future prospects of cheese-making in that part of the Dominion, though it is true that the industry, in common with all others, had recently passed through very trying times.

The dairy cattle, in some parts of Ontario, will compare not unfavourably with those of many parts of England. Shorthorn grades prevail, and it may be said that, wherever a better class of cattle are found, the improvement is due, as a rule to the shorthorn element. In the magnificent herd of

pedigree shorthorns at Bow Park, I found a collection of animals which, for number and quality, cannot in all probability be equalled elsewhere. It is clear that the climate and soil of Canada are well suited to maintain the purity and vigour of these animals, and there is every indication that they have not deteriorated in any respect, but the contrary, in their new home in the Far West. There are some 300 animals on the farm, forming a herd that is well worth crossing the Atlantic to see. I spent three days at Bow Park, enjoying the company of my worthy friend Mr. Clay, and I should have liked to spend as many weeks or even months, in order to become familiar with the many beautiful shorthorns I saw there. Canada has in her midst, then, the largest herd of pure-bred shorthorns to be found, and she ought to make an extensive use of it to improve the bovine stock of the country, with the view of developing the new fat-stock trade which has sprung up with England. But Mr. Clay complains, and not without reason, that the Americans are ahead of the Canadians in appreciation of good stock, and that the greater portion of his young bulls have to find a market in the States. This ought not to be so, and it is no feather in Canada's cap that such a complaint should be made.

The county of Brant, near whose capital town of Brantford the farm is situated, is of a more broken and hilly character, with a more frequent occurrence of valleys and rivers where banks are steep, than we find to be the case in many other parts of the Province of Ontario. It is also well wooded, and generally picturesque. The Bow Park farm is situated within a long horse-shoe bend of the Grand River, which empties into Lake Erie. The river's bank on the west is high on the Bow Park side, and the land trends away in a gentle but somewhat varying slope down to where the river comes round again on the east; here, again, but on the opposite side of the river, the bank is high, forming a bold bluff, from which at many points a view of nearly the whole of the farm may be obtained. Thus the farm resembles, as it were, a huge plate, which is tilted up some sixty or seventy feet on its western side, the lower edge of it dipping easily into the eastern section of the river, which surrounds it except for a neck of land in the south of some five hundred yards in width. Along the east and north-east, where the land for some distance slopes slowly down to the river, the soil is a rich alluvial deposit, which is still being flooded and deepened by the swollen water in the spring; in the middle of the farm the soil is a strong sandy loam, and on the west a lighter sand, resting on a gravelly subsoil. The lower part of the farm grows fine crops of mangels, red clover, lucerne, and the like; the middle is well adapted to any crop you would like to put upon it, and the upper part grows a large burden of maize. It is thought by many in the Old Country that the soil and climate of Canada are ill adapted to the growth of clover; but here I find on the wheat stubbles as fine a root of red clover as I would wish to see anywhere and one large field is covered with a luxuriant root of white clover, which, of its own accord, has sprung up on a rye stubble of the present autumn: white clover, in fact, is indigenous to these soils; the roadsides are covered with it, and the field in question is now providing a fair pasture for about forty in calf heifers, while the portions of the farm which are really untouched parts of the primeval forest have a strong-stemmed undergrowth of red clover, wherever the brushwood has been trampled or cut away.

But fancy this magnificent farm, which erstwhile was forest and glade, now growing magnificent crops of grass, and grain, and roots, and supporting some of the finest the world has in it of the ubiquitous Teeswater bovines. This transition from Red Indian, and black bear, and moose deer, to Anglo-Saxon and Kirklevington Duchesses, to Duchesses of Barrington, and Oxford, and Woodhill, to Royal Charmers, Countesses, Lady Fawcleys Polly Gwynnes, Roses of Sharon, Waterloo, Wild Eyes, and the like, to Princes, Dukes, Earls, and Barons of the same ilk, and all these glories of shorthorn fame supplemented by waving fields of grain, of mammoth mangel wurtzels, and of thickly-carpeted clovers, is as remarkable as any thing we meet with in this great young country of the west. The situation of the farm, and the views of the district which we obtain to great advantage from many points on the river's high bank on the west, are beyond compare the finest I have seen in Canada, or, for the matter of that, in the United States; and when we turn from these beauties of locality to witness the grand shorthorn cows, and heifers, and yearlings grazing lustily on the newly-seeded clovers, or on the primeval turf which for ages has formed a beautiful glade in the forest, we have the surroundings complete which go to make up a scene in which the soul of any Old Country farmer would take great delight.

The Bow Park Farm was purchased, a dozen years ago, from various persons who had settled upon it, by the Hon. George Brown, whose melancholy death a few months ago, by the bullet of a drunken assassin, filled the whole of the Canadian agricultural world with indignation and dismay. It was converted first of all into an ordinary dairy farm, in the days when Canada was coming to the front as a cheese-producing country; and a cheese factory, which is still standing, though put to other uses, was built for the convenience of the farm and of the neighbourhood around. Gradually, however, the dairy stock were improved; and as the soil developed animals in a superior manner, the idea arose to form it into a breeding establishment for stock of the best kind, and there is now upon it one of the largest and most valuable shorthorn herds in the world. There are in all nearly two hundred females and forty to fifty males, in many of whose veins runs the bluest of blue blood, while there is not a single animal among them who has not unexceptionable pretensions to patrician parentage. In lots of twenty to forty we find the females pasturing in various parts of the farm; and it is a sight worth travelling far to see which we get in waudering slowly through the herds, each individual of which with pedigree and all, is named at once by my friend Mr. Clay, to whom the chief management of the farm is entrusted by the Association to whom this great undertaking belongs.

Going first among the bulls, we came to the lord of the harem, the veritable king of the herd, an animal of surpassing merit, and a fortune in himself. This grand old sire, the 4th Duke of Clarence, who was bred by Colonel Gunter, of Wetherby Grange, is, to the best of my recollection, the most nearly faultless bull I have seen in this or any other country. He is a huge mountain of flesh and bone and muscle, and at first sight one would think that no two of his four legs could support the burden; but when we notice the grand development of muscle, and the grace and ease with which he moves, we think so no longer. His brisket is wide and deep, down to his knees; his shoulder, from the point of it to the brisket

between the knees, measuring 4 ft. 9 in., is the deepest I have seen, and yet it is not in the least coarse or lumpy; his top is level, wide, and long, measuring 5 ft. 8 in. from point of shoulders to the square of the tail, and the roasting-beef is there in fine display. He is well sprung in the ribs, with great chest-room; equally well let down in the flanks, forming perfect underlines; the tail is set on as a tail ought to be, but not always is; the neck is wonderfully massive and muscular; the head has the true shorthorn character, and is withal very kindly in expression, denoting the good temper which the owner is known to possess, and which is no mean factor in the process of physical development. With a constitution unsurpassed, this fine six years old bull is a most impressive sire, superseding in almost every case the influence of the dam; he is, in fact, thoroughly prepotent in the widest sense of the word, impressing his individuality on sons and daughters alike. His dam was the 4th Duchess of Clarence, and his sire the 18th Duke of Oxford, who was bred by the Duke of Devonshire. He traces back through Dukes of Clare, Wharfedale, York, and Northumberland, through Cleveland Lad, Belvidere, the Hubbards, Ketton 2nd 710, Comet 155, and Favourite 252; and among the breeders' names are Bates and Colling, Hunter and Thompson. Here is blue blood enough and to spare, with a representative in every way an honour to it!

Among the younger bulls we come to the Duke of Oxford 46th, a most promising young animal of eighteen months, whose sire is the 4th Duke of Clarence, and dam the Grand Duchess of Oxford 29th. He has a great deal of the sire's character in all respects, and, if we mistake not, will prove a worthy scion of a grand line. Next we find a beautiful ten months' bull, Baron Acomb 11th, by the same sire, and out of Aurora, a rich red roan in colour, shapely and substantial, and most promising withal. By the same sire, again, there are Baron Knightley 5th, only four months old, 8th Duke of Kirklevington, a few weeks younger still; Earl of Goodness 8th, Prince Victor 2nd, Roan Duke 6th, ditto 7th and 8th, Waterloo Duke 2nd, Dukes of Barrington 11th and 12th, and Butterfly's Duke, animals whose ages vary from two to nine months. There are also many excellent yearlings by other sires, forming a collection of great merit.

Among the more celebrated and valuable females, we find Rose of Autumn 3rd, a pure Mantalini, and a very choice animal; she is now four years old, and a most beautiful cow, in-calf to Prince Leopold. This cow is simply grand in the shoulders, which are deep, clean, and beautifully set in. She has very fine bone, well-rounded ribs, a very small amount of offal, and excellent roasting joints. She walks off the ground bravely and gracefully, and fills the eyes weathily as she passes away. An excellent and well-preserved animal is Butterfly's Duchess, bred by Mr. Garne of Churchill Heath, and imported. She has a wonderful substance, magnificent hind-quarters, and grand broad hips, with a top of surpassing breadth and evenness. Among the younger females we come to Royal Charmer 11th, ten months old. This excellent young animal has a beautiful skin, rich roan in colour, and very mellow to the touch, perfectly level top and even underlines, handsome head and neck, fine bone, clean and even points, and neat as a new pin. It is wonderful what matronly models these young heifers lay hold of. I cannot find time to describe more than a tithe of those I should like to mention, and it would, indeed, take a week to learn

them properly first ; nor, in fact, do I pretend to have picked out the best specimens so far, for where there are such a number of first-class animals, most of whom have many merits in common, while many of them have special points of excellence of their own. it would require the nicest judgment, formed after a long and careful inspection, to assign the many blue ribbons which I should feel bound to award. Suffice it to say, that here is a great herd of shorthorns, in which all the finest families are more or less represented, and that they are flourishing in the best manner possible, and under conditions closely allied to nature.

One of the most striking facts brought out in connection with the Bow Park herd is this—the best-bred animals are clearly the best-developed ones in size and beauty, while their constitution is just as clearly of the soundest and best. No doubt the way in which all the animals alike are treated has no little to do with the superb health which they all enjoy. In no sense are they forced into condition by extravagant feeding. The food they get indoors is chiefly maize, of which stalk, leaf, and half-developed ear are passed together through the chaff-cutter. The older cows and heifers, in fact, do not receive through the summer even this modicum of artificial food ; they depend entirely on grass, when there is enough of it as there has been through the past summer and the present autumn ; and it is indeed surprising to see the excellent condition which one and all of them are in, on grass alone.

Animals of the Oxford, Kirklevington, Waterloos, and Roan Duchesses are individually and collectively superior, not only in personal merit but in general excellence, to those of less excellent strains. No falling off in vigour and healthiness of constitution, no sign of tuberculosis, and little, if any, of infertility, is known amongst them. Closely in-bred as they have been for many generations, transplanting them to newer soils and to a clearer climate than that of England has clearly re-invigorated them in the qualities which are usually enjoyed by animals which have not been artificially bred and tended, and lacking which the purest bluest blood is shorn of some of its most valuable properties. That a Canadian home admirably suits the high-born British shorthorn is the first impression given to any stranger who visits Bow Park, and, so far as the first requisites in successful breeding are concerned, it is clear that Canada is abreast of the Old Country ; while my own observation during the three days I spent at Bow Park resulted in the opinion that less careful feeding and attention are needed there than here.

The sheep of Ontario are, on the whole, better than I expected to find, but they are open to improvement. It appears to me that Shropshires and Border Leicesters are calculated to improve the flocks, as shorthorns are to improve the herds of Canada. In any case, however, the mutton I got in Canadian hotels was nice-flavoured, tender, and juicy, as a rule—in these respects better than that of our Cotswold sheep, or that of many of the Leicesters ; but the Canadian sheep, as a rule, need improving in symmetry, if not increasing in size. The pigs, generally speaking, are very good, better, perhaps, on the average, than the pigs in the British Island. I do not see that this class of farm stock needs much improvement. It is abundantly clear that Canada can produce excellent farm stock of all kinds, and that most of them are being improved. Until recently the inducements to improve them have not been strong enough, and in some of the Provinces

little or nothing would appear to have been done in this direction. Now, however, the inducement is supplied, and it is probable that in ten years' time we shall find a marked reform in the quality and symmetry of the cattle and sheep as well as a great increase in numbers. It is not easy to estimate the cost of raising and fattening beef in Canada, because the facilities vary in different districts. The following, however, has been communicated by an enterprising breeder of fifteen year's experience :

| | | |
|--|----|-------|
| Raising, feeding, and attendance, first year, per head | 24 | dols. |
| “ “ “ second year, “ | 18 | “ |
| “ “ “ third year, “ | 24 | “ |

Total cost of fat beast weighing 1600 lb. 66 dols. = £13 4s.

This would be about 4 dols. 12½ cents (16s. 6d.) per 100 lb. live weight; or 3½d. per lb. on the dressed meat. At the present rates of freight, in summer time, such an animal would be landed in Liverpool for £5 to £6, including food and attendance. It is probable, in fact, that Canadian beef will be landed in Liverpool, giving fair profits to all concerned, at 5d. to 6d. a lb.

A neighbour of mine in Derbyshire, an intelligent working man with a large family of children, went out to Canada, some ten or twelve years ago, with about £100 in his pocket. Having his address with me, I wrote to him, and he came to Toronto to meet me. His home for the present is in County Grey, Ontario, where he is farming 200 acres of rented land, in addition to a quantity of his own. For the rented land he pays 75 cents an acre—or, rather, this is what he agrees to pay, or its equivalent in some other form; the fact is, however, that his improvements have more than covered the rent. The land is cleared, but the permanent improvements done on it are such that they balance the rent; these improvements consist of fencing, draining, road-making, getting out stones, and the like. He raises cattle and sheep; the former are natives with shorthorn crosses, the latter too are natives, more or less improved. His fat ewes, sold in September, weight 180 lb., live weight, on the average. He grows rape for sheep-feeding—a practice very popular and profitable on the limestone soils of Derbyshire. Improved lambs are worth, a dollar a piece more than native lambs, viz., 3 dollars to 3 dollars 50 cents, native lambs being worth 2 dollars to 2 dollars 50 cents. Oats fetch 30 to 31 cents; wheat, 90 to 100 cents; white peas, 60 to 65 cents; and barley, 50 to 60 cents per bushel. He ploughs rape under for barley, and, after barley, takes turnips, working, ridging, and manuring the land for them. He says that if butter fetches 15 cents a pound, the farmers do well. Cattle, when fat, fetch 3 to 4 cents a pound, live weight; these are native cattle; improved cattle are worth 5 to 5½ cents; while mutton is worth 4 to 5½ cents, according to quality and the time of the year. My old neighbour is not afraid of work, and he has his share of native shrewdness; he thinks a man will do better renting than owning his land in Ontario, because the rent is less than the interest on the money; he has prospered himself in renting land, and informs me he is now worth upwards of £1000. He would not have been worth one-fourth of it if he had remained in England.

I was much interested in a trip made to Bradford and Barrie, the latter

a beautiful town on an arm of Lake Simcoe. At both these towns we had a meeting of farmers in the evening, and a lively discussion on agricultural topics. The farmers around Bradford declared that they had more than held their own, despite the bad times of the past four or five years. They considered their capital employed in farming had at all events paid five per cent per annum during that period of depression. Previously, a farmer expected to buy and pay for an extra farm every eight or ten years, but of late years they have not been able to do so. The land about Bradford is a clayey loam, some of it almost a clay, and, as a rule, it is well farmed. More or less live stock are kept, and the land is farmed in rotations which are far from arbitrary or regular. Wheat is taken now and again; mangels, carrots, turnips, &c., are grown, and the land is generally seeded down with a white crop; if with autumn wheat, the timothy is sown in the autumn and the clover in the spring.

It is needless to suggest anything to the farmers of Bradford, except that they keep as many live stock as possible, making the other operations of the farm subsidiary to them; the live stock then will do their part in maintaining and increasing the fertility of the farms.

I had the pleasure of being present at the agricultural shows of Toronto, Hamilton, and Montreal, and I may say that I have seen no shows in England, except the Royal and the Bath and West of England, that can claim to be ahead of them in aggregate merit. The Montreal show is a new one, and in a short time will also be a very good one, no doubt; in any case, its permanent buildings are the best I have seen, either in Canada or the States. The Canadians throw themselves with great spirit into enterprises of this kind, and these shows are a great credit and ornament to the Dominion.

The school accommodation of the settled districts of Canada, and the quality of the education given to the children, are among the country's greatest merits and ornaments. The school-houses are frequently the most prominent buildings in many of the towns and villages, and throughout the Dominion the education of the young is regarded as a matter of vital importance, and one of the highest duties of citizenship. Every where primary education is free, the poor man's child enjoying advantages equal to the rich man's, and even in the higher branches of education in the colleges the fees are merely nominal, the State providing all the machinery and defraying nearly all the cost. The education of all children between the ages of seven and twelve is compulsory, and Acts of Parliament are in force under which delinquent parents may be fined for neglecting to send their children to school. It is impossible not to discern in these provisions one of the surest pledges of the future greatness of the country, and they obviously provide the poor man with advantages greater than those he will meet with in most parts of England. One of the first duties of a new district is to erect a school house with ample accommodation; and so imbued are the people with the need and wisdom of such an act, that the provision is made with alacrity. Sectarian differences are arranged by the erection, where necessary, of separate schools, but in any case, the children are bound to be educated. It may be true that the support of the high schools should come in a larger measure from those who benefit by them, and in time no doubt this part of the educational question will be more or less modified, yet it cannot

be denied that if the Provincial Governments have erred at all in this matter, they have erred on the right side. It is not competent for me to go farther into the question in this report, but it is important to notify intending emigrants that, at all events, their children are sure to be provided, according to the measure of each one's capacity with the knowledge which is power.

Among educational institutions the Guelph Agricultural College occupies an honourable position. The College was unfortunately not in session when I was there, and the President and Professor of Agriculture were both away at the Hamilton show, so that I saw the College and farm under unfavourable conditions. The Professor of Chemistry did all that lay in his power, however, to give me facilities for seeing the educational machinery of the College, as well as the farm buildings, the farm, and the stock. The following day I had the pleasure of meeting Mr. Mills, the President, and Mr. Brown, the Professor of Agriculture, at Hamilton. It is satisfactory to know that the College is being more appreciated and employed year by year by those for whose benefit it was established. Increased accommodation is now being provided, and there is a prospect of the College even becoming self-sustaining in time. Already it is a flourishing, though quite a young institution, and its influence is being felt on the agriculture of the Province. The students receive an agricultural education, in which science is happily blended with practice, and theory is borne out by demonstration. The farm consists of some 550 acres, on which a variety of experimental and practical crops are grown, and several kinds of pure-bred English sheep and cattle are kept, which, in their turn, will have an important effect on the country's future.

The taxation in Ontario is light, as it is every where else in the Dominion that I have been. At first sight it would seem to be heavier than in some of the other Provinces, yet it is not really so. It is assessed on the basis of valuation of property, and in this sense differs but slightly from the other Provinces. Land, and real property generally, leaving out of consideration such cities as Montreal and Quebec, is more valuable in Ontario than elsewhere, yet the total taxation, including school-rates, does not often go beyond 25 to 30 cents an acre, while it frequently falls below those sums. Some districts have public property which nearly provides all the public money that is needed, and others are the more heavily rated for the present in order to wipe off sums of money which were given as bonuses to new railways passing through them. But nowhere did I meet with an instance in which taxation may be regarded as really burdensome; yet it will be expedient for new-comers to make inquiry into these matters before purchasing farms.

In the matter of assessing land for taxation, the farmers appoint a commission to value it, and it is revalued each year if thought expedient. If any dispute arise the land is looked over again, and the dispute may be privately settled by the judge. Practically the farmers hold their taxation in their own hands, for no direct imperial taxation is levied.

The farming in many parts of Ontario is of a higher order than I had been led to expect. West of Toronto, as well as north of it, I saw many farms in a condition which would be no discredit to any country whatever, but a great credit to most.

QUEBEC.

I have to regret that my time did not admit of my taking more than a glance at the Eastern Townships of this Province, because I am persuaded there is much excellent land in them, and a good opening for English farmers. They are situate between the cities of Montreal and Quebec, and near some of the cities of the United States, in all of which are good markets for farm produce. The land, moreover, is much lower in price than in the better portions of Ontario, and farms for the most part cleared and fenced, in a fair state of cultivation, and possessing good houses and buildings, may be bought at the rate of £4 or £5 an acre. The district is rolling and the soil loamy; it is also well supplied with water, a valuable feature in dairy-farming and stock-raising. The climate is healthy, for it is here that Mr. Cochrane has raised his excellent shorthorns, and where he is now beginning to raise high-class Herefords in the place of them.

The agriculture of Quebec, generally speaking, is susceptible of improvement, and the same may be said of its cattle, sheep, horses, and pigs. In many parts the farmers plough the 'lands' too narrow, as if the soil were very wet. If such be the case, it were better to underdrain it. I noticed that grasses and clovers grew best in the numerous furrows. The fences of Quebec, as a rule, are quite equal to those of any other Province, and probably superior, because, being straight rail fences, they are not such a harbour for weeds as the zigzag 'snake-fences' too commonly are.

NOVA SCOTIA.

Of this province, too, I am unable to say very much, as I had not facilities for inspecting it equal to those with which I was provided elsewhere. In the neighbourhood of Truro I saw some useful land, in the Vale of Annapolis also, some of which is not easily excelled in any part of the Dominion. I was recommended, by his Excellency the Governor-General, to pay a visit to this fertile region, and I may fairly say that I should have missed a treat if I had not done so. The finest portion of the valley is found in the Kentville district, and in Cornwallis, in King's County; and the great feature of the locality is found in the dyke-lands, which have been reclaimed from the Bay of Fundy.

Of the nature of these lands I shall have to speak at some length in my remarks about New Brunswick, which Province also has a large area of them. There is however, some very fine upland in the valley, which is admirably adapted to the growth of roots and grain, and to the raising of live stock of various kinds. The apples of the Annapolis Valley are famous in many countries, and though they do not surpass those of Ontario, they are an ornament to the country, and a source of profit to the people. It is probable that there is room for a limited number of English farmers in Nova Scotia, but, so far as I saw it, it does not offer inducements equal to those of the adjoining Provinces. The country for some distance out of Halifax cannot ever become valuable farming land, a great part of it being what is termed a 'hard country,' that is, rocky and short of soil.

PRINCE EDWARD ISLAND.

In some respects this is one of the most beautiful provinces of the Dominion, and it has probably the largest proportion of cultivable land. The soil generally is a red sandy loam, of one character throughout, but differing in quality. On the whole, the grass-land of the island, and the character of the sward, consisting as it does of indigenous clovers and a variety of the finer grasses, reminded me strongly of some portions of Old England. The people, too, are more English in appearance than those of any of the other Provinces, with the exception of New Brunswick. This is probably owing to a cooler climate and the contiguity of the sea. The hotter climate and the drier air of the West seem to deprive the cheeks of some of the colour. The summer climate of the island appears to be almost everything that can be desired, but the winter is very long; the Northumberland Straits being frozen, the people are isolated from the mainland during the winter, unless, indeed, they cross over on the ice—a thing which may be done, and I believe not uncommonly is.

One of the most annoying circumstances in connection with the island winters is this: it commonly happens that in spring numbers of icebergs find their way through the Straits of Belle Isle, and collecting in the northerly half-moon coast of the island, melt there slowly, retarding vegetation sometimes a fortnight or more. The people believe that if a breakwater were thrown across the Straits of Belle Isle the climate of the Gulf of St. Lawrence would be vastly improved, and there are some who incline to the belief that in this event the St. Lawrence would be navigable the year round; if such results were at all likely to follow the closing of the straits, why—the sooner they are closed the better.

Prince Edward Island is covered with a soil that is easy to cultivate, sound and healthy, capable of giving excellent crops of roots, grain, and grass—an honest soil that will not fail to respond to the skill of the husbandman. For sheep, particularly, the island appears to be well adapted, for the soil is light, dry, and sound, growing a thick-set, tender, and nutritious herbago. For cattle, too, it is suitable, though perhaps less so than for sheep. For horses the island has been famous for a long time, and American buyers pick up most of those there are for sale. It is not improbable, in fact, that taking them for all in all, the horses of the island are superior to those of any other Province; it seems, in fact, to be in a sense the Arabia of Canada. The sheep, as a rule, are fairly good, but open to improvement; the cattle, generally speaking, are inferior. Many of the sheep are now being exported to England, and the day I sailed from Quebec, Mr. Senator Carvell was shipping some 1200 of them, most of which were of very fair quality. This gentleman, to whom I am indebted for much kindness and information, informs me that sheep from the island cost 15s. a head in freight, food, and attendance, by the time they reach Liverpool, besides which there is insurance, which varies from 2 to 10 per cent., according to the season of the year.

It cannot but be regarded as a good thing for the island that Mr. Carvell has opened up a trade in this way, and it will be an inducement to the people to go more into sheep-raising—an industry for which the island is specially adapted. The cattle at present are not good enough for the

English market, and they are not worth taking over. The Provincial Government has established a stock-farm near Charlottetown for the dissemination of better blood through the flocks and herds of the island; but so far the farmers have not availed themselves as they ought to do of this great advantage. The new trade with England will, however, in all probability cause them to put their shoulders to the wheel and to bring their cattle up to the level of the sheep. Beef and mutton are very cheap at present on the island; stall-fed beef in spring can be bought at $3\frac{1}{2}$ cents a lb., live weight, and grass-fed beef in October was worth only $2\frac{1}{2}$, while dressed beef by the side could be bought at 4 to 5 cents per lb.; lamb and mutton by the quarter, and of very nice quality, was being sold in the markets at 5 cents per lb. Lambs were worth from 6s. to 10s. each, and ewes, 10s. to 18s.; while fat wethers and ewes were bought at 15s. to 20s. By exporting a few thousands yearly to England the prices of sheep will increase on the island. The farmers complain that they receive but 17 cents per lb. for their wool; but so long as they shear unwashed sheep they must submit to low prices.

The island grows very good wheat, and probably better oats than most other parts of the Dominion. Of the former, the crops are from 18 to 30 bushels, and of the latter, 25 to 70 bushels per acre. Barley, too, as may be expected, makes a very nice crop. Wheat at the time of my visit was worth 4s. per bushel of 60 lb., oats 1s. 9d. per bushel of 34 lb., and barley 2s. 6d. to 3s. per bushel of 48 lb. Winter wheat is regarded as a precarious crop, being liable to be thrown out of the loose soil by the thaws in spring. The same thing holds good in Manitoba, and in Ontario I found that the farmers consider there is danger on the one hand, with winter-wheat that is too far advanced when winter sets in, of having it smothered by a too heavy fall of snow lying too long, especially on damp land; and on the other, of having it throw itself out of the ground by the heaving of the frosts and thaws of Spring. In this event the dead plants may afterwards be raked off the land like so much hay. There is indeed, on these loose soils, room for the exercise of judgment in the sowing of the grain. Many farmers consider it a good thing to drill it in north and south as a protection against the prevalent west winds, while others try the experiment of leaving a row of old cornstalks standing at intervals of 15 or 20 feet. All this is done to prevent the wind blowing the snow off the plant and so exposing it to the withering frost, for snow is indeed a protection if there is not too much of it and the land is dry.

The island is noted for its large crops of excellent potatoes, which not uncommonly foot up to 250 bushels an acre of fine handsome tubers. At the time of my visit they were worth only 15 to 20 cents a bushel, the tariff of 15 cents a bushel imposed by the Americans on Canadian potatoes having almost killed a once large export trade of potatoes to the States. Swedes make a fine crop, not uncommonly reaching 750 bushels per acre of sound and solid bulbs.

The island possesses one advantage which is unique and immensely valuable; I refer now to its thick beds of 'mussel-mud,' or 'oyster-mud,' which are found in all the bays and rivermouths. The deposit, which is commonly many feet thick, consists of the organic remains of countless generations of oyster, mussels, clams, and other bivalves of the ocean, and of crustaceous animals generally. The shells are generally more or less

intact, embedded in a dense deposit of mud-like stuff, which is found to be a fertiliser of singular value and potency. The supply of it is said to be almost inexhaustible, and it is indeed a mine of great wealth to the island. It is also found to some extent on the east coast of Nova Scotia and New-Brunswick. A good dressing of it restores fertility in a striking manner to the poorest soils; clover grows after it quite luxuriantly, and, as it were, indigenously; by its aid heavy crops of turnips and potatoes are raised; and, indeed, it may be regarded as a manure of great value and applicable to any kind of crop. Nor is it soon exhausted, for the shells in it decay, year by year throwing off a film of fertilising matter. This singular deposit is obtained, as a rule, below low-water mark, and in winter when the water is a solid mass of ice. Holes are cut through the ice until the mud is reached, and a powerful and ingenious horse-power scoop is used to fetch up the mud and dump it in to the sleighs; it is then taken to shore and laid in heaps until it is wanted.

There is not much Crown land to dispose of in the island at the present time, but there are plenty of encumbered farms, more or less improved, which can be bought at 5 dollars to 35 dollars an acre. Taxation on the island is very light; it amounts to 2 to 8 cents an acre, according to value, or from 15 to 18 cents per 100 dollars valuation.

The educational advantages of the island are on a footing similar to those of the other Provinces. There are good roads, railways, &c., and many excellent harbours around the island. There are also thriving woollen and other mills, not to mention the lobster fisheries, which are a source of considerable wealth to the Province. There are, however, complaints that too many farmers have been tempted into the fishing business, to the neglect of their farms; that between two stools these men have fallen to the ground; and that the land is sometimes blamed for losses which really come of neglecting it. I was assured on the highest authority that farmers who have minded their business, have been steady, and have used a moderate supply of commonsense in their dealings, have made farming pay and become independent. It is true that a man is independent on a smaller sum in Prince Edward's Island than he would be in England, but at the same time there are numerous evidences of happiness and contentment among the people.

It appears to me that Englishmen of moderate ambition would find homes congenial to their tastes in this beautiful Province, and I have an impression that, with cattle and sheep raising and fattening for the English market, better times are in store for these hospitable and kindly islanders many of whom I shall always remember with feelings of more than ordinary kindness. For agricultural labourers there is plenty of employment at good rates of pay. A man will get 80 dollars to 150 dollars per annum, plus board and lodging; or, minus board and lodging, but with cottage, keep of a cow, and an acre of land for potatoes, will receive 140 dollars to 200 dollars in cash. Farming, after all, cannot be bad where such wages are paid to men, and there is every inducement for the farmer and his family to do all the work they can within themselves.

NEW BRUNSWICK.

Apart from its wealth in timber and minerals, the latter as yet only just beginning to be developed, the Province of New Brunswick is well adapted to the pursuits of agriculture. In several portions of the Province there are soils which have certain very remarkable features and properties; and in many other portions I found soils that are easy to cultivate when once cleared of timber, deep in staple, and rich in the accumulated fertility of many centuries. Many of the upland soils bordering on the beautiful valley of the St. John River have every indication of being well adapted to stock raising, particularly of ovine stock. They are for the most part sandy or gravelly loams, sometimes approaching to stiffness, but generally friable, varying, no doubt, in depth and quality, but hardly anywhere good for nothing. It is probable, in fact, that, with the exception of Prince Edward's Island, New Brunswick has a larger proportion of cultivable soils than any of the older Provinces of the Dominion.

So far, however, the settled parts of the Province are chiefly along, or adjacent to, the rivers which drain the country; but there are yet many millions of acres not appropriated, as good, in all probability, for agricultural purposes as those that are—if we make exception of the 'dyke' and 'intervale' lands. But these unsettled portions are for the most part still covered with a dense growth of timber, and I should hardly fancy that English farmers are either fitted for or would like the task of clearing it off.

The work of clearing these lands is, indeed, herculean, but it is generally supposed that the timber will pay for it. The land may be cleared at a cost of 12 to 20 dollars an acre, and it is said that a Canadian backwoodsman will cut down an acre of heavy timber in three or four days.

Let us take the new settlement of New Denmark as an instance of what may be done. Seven years ago the locality was covered with a dense forest, and the Danes who emigrated to it were very poor; now hundreds of acres are cleared, and are producing abundant crops of grain and vegetables, some of which are of a superior character, and the land supports a happy and prosperous colony, which in time will be a wealthy one. It is not too much to say that the condition of these people is far better than it would have been in the land of their birth. Take again the Scotch settlement of Napan, on the Miramichi: here we have also a favourable illustration of what thrift and industry will do. The settlement is mainly Scotch, but there are a few Irish among them, some of whom have prospered. One Irish farmer we met had become wealthy, 'and,' said a countryman of his to me, 'we call him Barney Rothchild itself!' It is at once pleasant and instructive to see these new settlements, for they are only what will be found all over the Province in course of time.

It would seem probable that a number of English farm-labourers might do the same, starting with free grants of land covered with timber, and clearing it as far as circumstances would admit of. They would in any case meet with encouragement from the Government and people of the Province, and with industry their reward would be sure.

Generally speaking, the sheep of New Brunswick are tolerably good, producing very nice mutton, and it does not appear that any special effort

at improving them is at present called for. But the cattle generally are very inferior, and here it is that efforts at improvement are urgently required. It appears to me that good shorthorn, polled Aberdeen, or polled Norfolk blood would bring about the desired change. I saw, however, many cattle in the neighbourhood of Sackville that are good enough for all practical purposes, and fit for the export or any other trade. Here, then, the 'blue noses' have an example in cattle-breeding set them in their own country. It is clear that the climate and the soil are fit to produce excellent cattle, and if we find comparatively few such, it is man's fault, not the country's. Ontario is a long way ahead of any of the other Provinces in cattle, and this will give her, in the new trade, a lead which cannot easily be taken away.

The soils I have spoken of as possessing certain remarkable features and properties are the 'dyke' and the 'intervale' lands. Both Nova Scotia and New Brunswick, are celebrated for the former, while the latter are a peculiarity of New Brunswick, in the valley of the noble river St. John. The dyke lands of both Provinces are found bordering on the inlets of the Bay of Fundy. Those I saw in Nova Scotia are in the neighbourhood of Kentville and Amherst; in New Brunswick I saw them at Dorchester and Sackville. As the name suggests, they are dyked in from the sea, from which they have been from time to time reclaimed. In many cases marsh grass is cut from saline swamps which have not yet been dyked, and over which the high tides for which the Bay of Fundy is noted, still during certain seasons, continue to flow. The grass is made into hay in the best way possible under the circumstances—on the ridges of higherland, on platforms, &c.—and is stacked on a framework which is raised several feet above the land, supported on piles; and it is a curious sight to see the water flowing under the stacks and in and about the piles when the tide is at its height. In one case I counted, near the town of Annapolis, upwards of 140 of these stacks, each of them containing a ton or so of hay. They are put up in this manner hurriedly, and are fetched into the farm-yards, in winter, as they are wanted, to use along with ordinary hay, with straw and with roots, to which they are found to form a tolerable though coarse addition. But the dyke-lands proper are so fenced in from the water by a strong bank of earth thrown up some six or eight feet high, with a broad and substantial base, that the land within them is firm and solid, of excellent quality, and covered with a thick sward of coarse though vigorous and nutritive grass. The fertility of these reclaimed soils is unusually high; they are never manured, but they cut on the average upwards of two tons of hay to the acre—a yield which has been sustained for many years, and shows no signs of running out.

The land, however, under this system of farming is found to become weedy in the course of time, and it becomes expedient to plough up portions of it in rotation, at intervals of ten or twelve years, taking one crop of wheat or oats, with which new grass seeds are sown, to form the new sward which is desired. This once ploughing is found to kill the weeds for the time being, and they do not again become very troublesome for some years; and when at length they do, the land is simply ploughed up again in the way described.

These bottom-lands are valuable acquisitions to the upland farms adjoining, most of which have more or less of them attached; and they do much

towards maintaining the fertility of the uplands, obviating the necessity of using purchased fertilisers on them. These dike-lands are in much request on this account, and they are worth from 50 to 150 dollars an acre, in a country where ordinary upland farms are not worth as many shillings an acre. The portions of these dyke-lands owned by different men are marked out for identity's sake, but are not fenced off from the rest. Each man cuts off the hay from his portion, and takes it home, sometimes several miles, and the aftermath is eaten in common by the stock of all the owners combined, commencing on the 1st of September. A few days before this date a committee of assessors is appointed to place a value on each man's portion of the land, and to decide on the number and kind of animals he shall send for pasturage. So it follows that we see very large tracts of land, on which hundreds of cattle roam about and feed at will.

The extent of these dyke-lands is said to be about 65,000 acres, and there is still a large area to be reclaimed. A large portion of the marshes was dyked by the French, previous to the conquest of Fort Beauséjour in 1754. Immediately afterwards they were taken possession of by the English settlers, who afterwards obtained grants of them from the Crown. The expense of dyking fresh marshes has ranged from eight dollars to twenty dollars per acre, and it is worthy of note that the system of constructing dykes and aboideaux adopted by the first French settlers is the one still employed. The system of cultivation is very simple, and consists of surface draining by cutting ditches 22 yards apart, 3 feet wide at the top, 2 feet 9 inches deep, and sloping to 1 foot wide at the bottom; about three years afterwards the land is ploughed in ridges of 6 to 8 feet wide, sown with oats and seeded down with timothy and clovers. It then yields large crops of grass of a coarse description, and it would seem to me that careful draining, generous cultivation, and discriminating manuring would increase the quantity, or at all events improve the quality of the grass. By a well-devised system of drainage, carried out in a workmanlike manner, and by the free percolation of rain-water through them, these dyke-lands would gradually lose much of the saline element which at present is not favourable to the growth of the finer grasses, and they would become fitted to the growth of roots, green crops, and grain, while as pastures they would be greatly improved.

The 'intervale lands' of New Brunswick are, as the name suggests, found in the valleys. The name is particularly appropriate and expressive. In England we should call them bottom-lands or alluvial soils. They are, in fact, alluvial soils to all intents and purposes with this peculiarity, they are still in process of formation. In some cases these intervale lands consist of islands in the rivers—and there are many such in the magnificent river St. John; but for the most part they are level banks on each side of the river, in some cases several miles wide, and reaching to the feet of the hills, which form the natural ramparts of the valleys they enclose. These intervale lands are rich in quality, and the grass they produce is very good. Like the dyke-lands, they need no manuring artificially. The dyke-lands, in fact, have such a deep excellent deposit of unusual richness, that manuring is superfluous: but the intervale lands receive a periodical manuring in the deposit which is laid on them each spring by the freshets of the rivers. They are, in fact, flooded more or less for several weeks in the spring of the year, and the deposit left by the receding waters is of a character to

add fertility to an already rich soil, and, at the same time, to add to its depth. An inch or two of rich alluvial mud deposited on these lands each year is gradually raising them above the influence of the freshets; and they are to-day among the most valuable soils in the Province.

Much of the upland of the Province is of very good quality, excellently adapted to the growth of cereal, root, and green crops generally, and for the raising of live stock. Sheep in particular do remarkably well wherever I have seen them in Canada, and nowhere better than in New Brunswick. Little, if any, improvement in them is specially desirable, for they are already of very good quality in most respects, and they are, of course, well inured to the soil and climate. The cattle, on the contrary, are of very inferior character; yet, at the same time, they are sound and vigorous in constitution, and therefore provide an excellent basis on which a very profitable breed of cattle may be built up by the use of improved blood from the Old Country.

There are in this Province millions of acres still unoccupied, except by a heavy growth of trees which form the primeval forest. The forests require a large expenditure of labour to clear them, and English farmers are not well calculated to do the work; but there are numbers of cleared farms which can be bought, with good houses and buildings upon them, at the rate of £3 to £8 an acre, and it seems to me that a practical farmer from the Old Country, especially if he has a rising family to help him, could hardly fail to do well in this Province. So far as the people are concerned, an English farmer would find himself quite at home here, and there is nothing in the soil or climate which would cause a painful disillusion. The geographical position of these maritime Provinces gives them a strong claim on the notice of the Old Country farmers who see the need of fresh fields and pastures new; comparative nearness to Britain, with regular and uninterrupted communication all the year round, offers a strong inducement for English settlers to come here; and the new trade in cattle and sheep which is rapidly growing up between the New and the Old Countries is sure to make farming in these Provinces a profitable business to those who have the will and the judgment to lay themselves out to produce live stock of the quality which will find favour in England.

I must not omit to mention, with warm feelings of pleasure and gratitude, the unbounded courtesy and kindness which were extended to me by the Lieutenant-Governor of the Province, by all the members of the government, by various officials, railway and steamboat managers, and by private gentlemen and others, in every part of the Province I had the good fortune to visit. The memory of my visit to New Brunswick will be a source of pleasure to me as long as I may live, and I shall not cease to entertain feelings of more than ordinary friendliness toward many persons whose acquaintance I had the pleasure of making under such happy auspices.

It cannot be denied that to the average Englishman Canada is a country considered to be chiefly noted for fur-bearing animals, Esquimaux, Indians, and winters of extraordinary severity. It may be these, but it is something more. It is a country abounding in agricultural and mineral

wealth, and it is a great country for timber. It has vast areas of excellent land, unsurpassed in fertility, and suited to the growth of many crops. It has already many thousands of prosperous and pleasant farms, and in a few years time will have many thousands more. It abounds in game and fish, in the live stock of the farm, in fruit, and in cultivated crops. It is true that the winters are severe, but I am assured alike in Manitoba and Prince Edward Island, in Ontario and New Brunswick, that the winters are bracing and healthy, full of enjoyment, and far more tolerable than a severe winter in England or Scotland; though the thermometer may now and again fall to 30° below zero, the atmosphere is always dry, and so the cold is not felt as severely as a much less extreme degree is in a damp climate.

The farmers of Canada work, it is true, but I doubt if they work as hard as we are in the habit of thinking. But in any case they work—not to do so would demoralise the men—and it seems that a drone cannot well exist in the atmosphere there. I believe I am correct in saying that the dignity of labour is more generally honoured in Canada than in England, and as there are fewer idlers, men in rags are scarcer. I do not, in fact, remember seeing more than two or three men in rags in the whole of my wanderings, and not many dirty, except the Indians, and not always these. Yet the farmers have not all plain sailing nor do they grow rich without industry and thrift. Every country has its disadvantages, and Canada is no exception. There are sometimes violent storms which do injury to the crops and stock; sometimes they are troubled with grasshoppers, but their visits are few and far between, and they have only made their appearance about six times during the last fifty years. The Colorado beetle I only saw once. It does not seem to have yet reached Manitoba and the North West Territory, and is not nearly so numerous as I had expected to find it, having confined its ravages more particularly to the United States Territory. Then, again, the weevil and the Hessian fly attack the wheat sometimes, and it is difficult when they do come to check their ravages; and lastly, the winters put a complete stop to agricultural operations, and the ploughing and sowing, as a rule, have to be hurried through in a limited period. The seed-time and harvest are very busy periods, but when the winter is over the spring comes at a bound and vegetation grows at a rate which surprises Englishmen.

These disadvantages apply to the whole of North America, and not merely to Canada; but they have no apparent effect on the progress of settlement in the country. Men soon learn to accommodate themselves to these things, suiting their work to the seasons, and planning out beforehand various things that can be done in the depth of winter.

Three things in Canada strike a stranger powerfully; the vastness of the country; the unbounded faith the people have in the future greatness of the country; and the cheerful loyalty to the Old Country which is everywhere found. The liberty of the Canadian farmer, grand and unconventional as it is, and the independence of mind and of position, considerable and even complete as it is in many cases, do not develop into license and recklessness, but into cheerful and generous habits of life. Loyalty to the Old Country and pride in their own are leading features in the political faith of the people; hospitality to strangers, and readiness to impart information and render services, are equally features in their

domestic life ; while a living faith in the future of the Dominion, based on a knowledge of its exhaustless natural wealth, and of the inherent energy of its citizens, is prominent in their conversations. It is not the aristocracy of birth, but that of labour and of brains—personal merit, in fact—that holds a foremost place in the estimation of the people.

The new departure which has recently begun in Canadian farming—that of sending cattle and sheep alive and dead to England—has elated the farmers of Canada, in a degree corresponding with the depression it has caused among the farmers of England ; it is a new and unexpected source of wealth to them, and they are laying themselves out to make the best of it in the future. So far the country is free from diseases of stock, but how long it will remain so depends almost entirely on the action of the Government. Stringent regulations are in force governing the importation and exportation of fat and lean stock, and qualified inspectors are on the alert in many places ; American cattle are not admitted except in bond, passing through the country under strict supervision.

So far the Canadian cattle-trade has expanded rapidly. It commenced in 1877 with 7000 to 8000, three-fourths of which were American ; in 1878 there were 18,000 sent to Europe, two-thirds of which were American ; in 1879 there were 28,000 sent, all Canadian, because American cattle were then excluded ; in 1880 it is computed 35,000 will be shipped ; and in five years it is predicted that 100,000 will be available. For these figures I am indebted to Dr. McEachran, of Montreal, who is the chief Government inspector of imported and exported cattle.

The landlords and farmers of England, and many writers and speakers on agricultural matters, profess to find some consolation in this : that with an increase of trade and commerce, freights will rise, and a check will thus be placed on transatlantic importations of stock. I have no doubt this hope will prove to be a mere *ignis fatuus*, and I cannot participate in it. I have it on very high authority that there is no probability of freights rising, but the contrary, rather. With steel-built ships, compound condensing engines, and various mechanical improvements, to which at present no limit can be placed, the cost of sailing a ship across the Atlantic is being yearly lessened.

The expenditure of coal on board steamships is being rapidly reduced, and the size of the ships increased, so that a 5000-ton vessel can be navigated now at very little more cost than was entailed by a 2000-ton ship ten years ago. Freight at 25s. a ton in 1880 pays better than freight at 50s. a ton did in 1870. This is brought about by enlarged ships, a smaller expenditure of coal, and a larger space on board for freight. The ships now building, though larger than those running, will run at less cost and carry very much more freight, and although freights for some time past have been and still are very low, it is an open secret that freights pay far better than passengers. In any case, the rate at which ships are being, and will be, built is greater than any probable increase in the volume of freights. Hence it is hardly possible that English farmers may find any solid comfort in a hoped-for rise in freightage.

I come now to the last point of discussion and inquiry in this report, viz, Is Canada suitable field of settlement for English farmers ? I approach this point with caution, because I am aware of its great importance. But the question rather is: Are English farmers suitable for Canada ? It

appears to me that Canada, as a country, has many advantages, and a future in all probability very important. She is a rising country : this cannot be denied ; and she cannot remain in her present stage of development. I think, then, that many of our middle-aged English farmers are unfitted by their habits of life and of labour to battle with the work which would fall to their lot in Canada. But there are many others who are fitted for it, particularly those who have led laborious and active lives ; and our young farmers would soon fall into Canadian habits. Men with large families who are not afraid of work would, as a rule, do well in Canada. The younger men would not long be at a loss in pioneer life in Manitoba, but it is scarcely the place for a man who has been long accustomed to English methods of farming ; that is, they would have to unlearn their old methods and learn new ones, but it is only fair to add that the land and climate of Manitoba are so generous that very careful cultivation is at present alike unnecessary and scarcely profitable. These latter men, as it seems to me, would be happier, and their wives would be more content, in Ontario, or New Brunswick, or Prince Edward Island. They are not suited to the cruder life of the Far West. A man with a capital of £1000 would do well in one or other of the Maritime Provinces, or in the Eastern Townships of Quebec ; one with £2000 would do well in Ontario. A man with little or no capital should either go to the Red River district or take a free grant of land in one of the lower Provinces. But any man should look round him for some time, and get into some kind of employment before he buys a farm or takes up a free grant. Looking at the increasing competition which British farmers have to meet, and at the heavy rates, taxes, rents, bills, and wages they have to pay, I have no doubt many of them would do better out yonder, and their families would do better than they can in England, providing always that they are not afraid of work, and are sober and frugal.

It is said that Canada is the place for a poor man, and this no doubt is true ; but it is also the place for a man of means, for capital tells a tale there. It is not probable, however, that many farmers of capital will face the ills they know not of in Canada, and indeed I would not advise any one to go there who is doing well in this country ; but, then, it is hardly fair to Canada that only poor men should go there as farmers, for money is wanted to develop the riches of the soil—not labour only. I know farmers in England who toil year after year, and live very carefully, without being any forwarder at the year's end than they were at its start ; this sort of thing to me seems very hopeless, and I would say to such men : ' You will get along faster in Canada. ' There is not, and has not been, a better time than the present for English farmers going to Canada. Canada is just recovering from a period of depression during which the value of land has become reduced, and it so happens that many of the farmers of the Lower Provinces are looking wistfully at the wonderful prairies of the North West, and are anxious to sell their present farms and go there with their rising families. They, it is true, are fitted to go and it seems to me a nice arrangement that English farmers of capital should take their places. It would seem, indeed, that the systems of farming to which English farmers have been long accustomed are well adapted to restore condition to the land, while Canadian methods are better suited to the present condition of the North West. It is at the same

time true that many English farmers would do well in the North-West, particularly those whose capital is small, and who are not too old for pioneer life. Yet in the Lower Provinces they would find farms and homes more in keeping with those they leave behind in England. Their sons, in turn, will move in the direction of the setting sun.

REPORT OF MR. HUGH McLEAN,

Rhu, Tarbert N. B.

The Delegate of the Kintyre Agricultural Society.

Yesterday (November 19, 1880), Mr. Hugh McLean, Rhu, the delegate appointed some time ago by the Kintyre Agricultural Society, to visit Manitoba, and report as to its suitability for emigration purposes, &c., addressed the members of the society and others in the Town Hall. The delegate was accompanied to the platform by Provost Greenlees, ex-Provost Galbraith, Rev. J. C. Russell, David McGibbon, esq., Chamberlain to his Grace the Duke of Argyll; Lachlan Clark, esq., Robert Aitken, esq., John Gilchrist, esq.; Charles McConachy, esq.; James B. Mitchell, esq., and James Littlejohn, esq., David McGibbon, esq., occupied the chair, and briefly introduced Mr. McLean.—*Campbelltown Courier*, November 20, 1880.

The following is the text of the report:

After certain preliminary arrangements in London had been completed, it was fixed that I should sail for Quebec on the 5th August, 1880, by the Allan Line steamer, *Sardinian*, Captain Dutton.

The *Sardinian* is a magnificent specimen of marine architecture. Her tonnage is 4376. She is divided into seven water tight compartments, is propelled by a pair of direct-acting compound high and low pressure engines of 2800 horse power, and maintains a speed of 14 knots per hour. She is strongly built, carries ten life-boats, has accommodation for 180 saloon, 60 intermediate, and 1000 steerage passengers. The steward's department is managed in the most approved manner, nothing is wanting to conduce to the comfort of the passengers; and every attention is shown that the most fastidious could reasonably desire. The berths are comfortable and well ventilated, the lights entirely under the control of persons appointed to light and extinguish them.

The ship arrived at Moville about 11 a. m. on the 6th. We sailed in the evening about 5 p. m. The time did not hang heavily on our hands, being enlivened by Captain Dutton's lectures on the Pyramids, Tabernacle, etc., together with very good music, instrumental and vocal. Having seen five icebergs, one large whale very close to the ship, and a school of five others about three miles off, everyone was pleased to find that we were entering the straits of Belle Isle. The beauty of that sail up the St. Lawrence was exquisite.

Having arrived at Point Levis on Sunday the 15th, our baggage was taken to the Custom-House shed for examination. We then procured tickets for Montreal. Perhaps what attracts one's attention most of all on the way is the charred stumps of trees that stand up like men, say in spaces of six or seven feet apart. They give a desolate look to the country, as if the hand of the destroyer was wasting it. The impression to a Scotch mind is waste.

Beautiful plantations (for he can as yet scarcely realise that they are forest) are on fire. It makes him feel sad to think that these woods are not in the home market. The land along the line of railway from Point Levis is occupied by French Canadians. Their crops seemed light. The oat crop was much lighter than at home.

Before leaving Point Levis (opposite Quebec), I was informed that his Excellency the Governor General was in Nova Scotia, and had telegraphed to Ottawa that he wished me to visit the Annapolis and Windsor districts of Nova Scotia, Sussex valley in New Brunswick, and the Eastern Township of Quebec, as well as Ontario, and the North-West. I felt that the task was onerous, that no time could be spared, and therefore on Monday presented myself at Ottawa. Here I found that the Hon. Mr. Pope, the Minister of Agriculture, was in England; that Mr. Lowe, Secretary to the Department, was in Quebec, and would not be back till next day. I was, however, received by Dr. J. C. Taché, who gave me a letter of introduction to Mr. Hespeler, Immigration Agent, Winnipeg. I then returned to Montreal. I should mention in passing, that Dr. Taché is the Deputy Minister of Agriculture, that he has written a very excellent pamphlet on the Colorado potato-beetle, showing how to oppose its ravages. As the pamphlet is largely circulated throughout the Dominion, I do not doubt but that it has been instrumental, where the suggestions contained in it are attended to, in allaying and in many places nullifying the ravages of that destructive insect. The methods of destroying the beetle are, first, hand picking; and second, Paris green. The latter is very efficient.

Before leaving Ottawa, I was much impressed with the beauty of its public buildings, conspicuous amongst which, situated on a hill, are the Parliament Houses, consisting of three blocks, forming three sides of a square, all detached. The grounds around are very tastefully laid out. The Post Office is an elegant structure.

Ottawa is famed for its trade in lumber, which in Canadian means 'timber.' The saw-mills are a study in themselves. The railway station from which I went to Montreal is at Hull, on the east side of the Ottawa river. I saw the Chaudiere falls when passing the suspension bridge, and perceived that limestone is the prevailing rock of the district. There are slides, or timber erections, in the river, to guide the rafts that descend the river to the various saw-mills:

The land around Hull is very good, and judging from the condition of sheep and cattle, as visible from the railway, the grass must have a fattening quality. Crops of wheat, oats, buck wheat, and corn whirled past as the train sped from station to station. Wooden houses, with verandahs in front, constantly met the eye; wood fences everywhere, till at last night closed the scene. At length we arrived at Hochelaga station, which is the name of the original Indian village, on the site of which Montreal is built.

The city of Montreal is situated on an island. The Victoria Bridge crosses the St. Lawrence, its length being 9194 feet. The city contains many objects of interest, which were seen on my return; but on this day I visited Notre Dame Church, which internally is a most exquisitely finished place of worship. The Crucifixion, the Apostles, the altar, the candlesticks, the gold and crimson decorations, all surpass description, and fill the beholder with awe and admiration.

I started for London, Canada West, by the evening train, but saw nothing of the country till next morning. When daylight came the morning was very wet. The country was beautiful. I found several fellow-passengers by the *Sardinian* were in the train. We were all glad to meet, but they dropped out one after another, and we were lost to each other probably for ever. We drove through a country farmed by English, Scotch, and Irish. There are good crops, good cattle, good houses. The fields are rich with golden-coloured grain. The orchards loaded with fruit. Everything to the passing visitor has the appearance of plenty. Now we pass fields of clover. Arrived at Port Hope, we passed more clover fields. Swamps intervene, then light crops. By-and-by beautiful crops burst upon the view. Everywhere the fields are fenced with zigzag rails, which appears to me to occupy too much land; but the British Canadians adopt them universally. We come to Toronto.

We proceed and pass through Guelph. On the run we notice brick buildings going up to replace wooden houses, generally a fair sign of a prosperous farmer; but sometimes I was told emulation induces a man to build a fine house while his land is mortgaged. We pass Breslau, which seems by the map to be not far from the Banks and Braes o' Bonnie Doon; then through Berlin, Hamburg, Stratford, St. Mary's, at which last place I changed for London, and saw the last of my last *Sardinian*.

I arrived at London and took train for Newbury, for the purpose of paying a short visit to a Kintyre settlement. I was driven over a clayey road from Newbury to Crinan by the light of the moon, and as yet saw nothing of the country. My quarters at Crinan were with the Rev. John Milloy, a native of Clachaig, Kintyre. In common with the whole settlement, I was roused about two o'clock in the morning by a thunderstorm. In the midst of it all I fell asleep, and awoke to find myself surrounded by glorious sunlight, and everything smiling.

I partly visited in the neighbourhood the farms of Messrs. John McMurchy, from Leanagbhoich; Archibald McLachran, from Auchnacrain; James Stalker, from Achnacloich, Muasdale; Duncan Stalker, from the same place; Dougald McMillan, brother-in-law to Mr. John Gilchrist, Ballivain; Messrs. Duncan Campbell, from Ballochroy; Finlay McNab, from Cour; Donald McCallum, from Carradale; Peter McMillan, from Achnafad, and many others, all natives of Kintyre, and all evidently doing well. I then called on Mr. Neil Walker, from Achnaglaic, near Tarbert (who had no notice of my approach), and who gave me a hearty welcome. I took the liberty of putting inquiries to him, as to his success since he left Tarbert in the year 1874. His farm I found to consist of 100 acres, one-third or $33\frac{1}{3}$ acres being under wood for fuel, one-third under wheat and hay, in proportions of about 18 acres of the former, and say $15\frac{1}{2}$ of the latter; the remaining third contained 3 acres barley, 2 acres Indian corn, $1\frac{1}{2}$ acres oats, and the balance summer fallow.

The summer fallow land is ploughed in autumn; it lies exposed to frost all winter, and to the sun till 1st September, when it is sown with fall wheat. He explained that when the land is first ploughed, it is so tough that one would suppose nothing could grow on it, but by being exposed to the frost in winter, and to the sun in summer, it moulders away until it is like the soil of a molehill. The soil in this part is black mould above and clay below, which, after exposure, is good producing wheat land. If the clay is under drained, it is good for most crops, even for apples.

The first year, Mr. Walker came to Canada he bought his present holding, which cost 3800 dollars, or £760, including log-house, barns, etc., he having also the straw of the waygoing crop. He sows 2 bushels of fall wheat and 2½ bushels of oats to the imperial acre. He sowed 30 bushels of wheat last year and had 234 bushels, which he considered very poor, and much below the average. He had the year before thrashed 250 bushels from 12 of seed. His potatoes are much the same as at home. The rotation he follows is to plough land that was under wheat (without grass) last year, in the fall, and sow oats in it in spring. After oats, summer fallow it; after fallow, sow wheat again, but putting all the manure the farm produces on the fallow. Turnips and mangel wurtzel are not grown. He had 10 milk cows, 7 two-year-olds, 4 one-year-olds, 32 ewes and 20 lambs, 5 pigs and 3 horses. He and his two sons labour the ground.

The following were the receipts and expenditure for the past year :

| | |
|-------------------------------|----------|
| Produce of cows sold..... | \$160.00 |
| Two three-year-old stots..... | 56.00 |
| Wheat..... | 233.00 |
| Wool..... | 47.12 |
| Lambs..... | 60.50 |
| Pigs..... | 50.00 |

\$606.62

EXPENDITURE—

| | |
|--------------------------|----------|
| Interest on \$3,800..... | \$190.00 |
| Taxes..... | 20.00 |
| Labour..... | 191.00 |
| Clothing..... | 100.00 |
| Smith-work..... | 5.00 |

506.00

PROFIT, £20 2s. 5d., or..... \$100.92

In giving the above, it is to be understood that the items interest, labour, and clothing are merely estimated, as he does not pay interest, and the labour is done by his family. The following were Mr. Walker's returns of various cereals since he emigrated in 1874 :

| YEAR. | WHEAT. | BARLEY. | OATS. | PEASE. |
|-------|--------------|-------------|--------------|--------------|
| 1875 | 170 bushels. | 80 bushels. | 600 bushels. | 220 bushels. |
| 1876 | 180 " | — | 350 " | 100 " |
| 1877 | 310 " | — | 220 " | 105 " |
| 1878 | 350 " | — | 210 " | 70 " |
| 1879 | 330 " | — | 165 " | 27 " |

He wished to impress on me that the land still requires great improvements to be made on it, and that if it were farmed on the same system that is adopted at home, it would produce double what it now does. With regard to the yield of the cows Mr. Walker stated that—in May last, 2019 lb. of milk were sold, which made 182 lb. of cheese, which, minus expenses of factory, realised 16.56 dollars or £3 6s. 2d. In the month of June 2906 lb. of milk were sold to the factory, making 276 lb. of cheese, realising 17.60 dollars, or £3 10s. 5d. He stated that in July there was a drawback owing to the hot weather. In August and September, although there was less milk, it took less milk to make a pound of cheese. October is the best money making month in the year. He can average 20 dollars per month for six months out of the ten cows, and can sell 40 dollars worth of butter; that is, the cows produce 160 dollars or £32, or an average of £3 4s. per cow per annum.

Next day I drove to Glencoe. Maple-trees abound along the route. I passed Battle Hill, the scene of a fight between the Americans and the British during the war of 1812. Before coming to Glencoe I was shown a farm, the owner of which had turned his attention to feeding cattle for the home market. Passed the residence of a lady, a native of Tanguy Glen. At Glencoe, which a few years ago was a small hamlet, but which now is a little town, having good shops and doing a good business, I saw for the first time the sunflower, a large yellow flower that always faces the sun.

On the train from Glencoe to London I met Dr. McAlpine, a native of Lochgilphead. He wished me to visit Kilmartin, in the neighbourhood of London, and to call for his brother, a farmer there, but I could not do so. He corroborated Mr. Walker's account of the Canadian method of farming.

On the train I fell in with a Dutchman, Mr. Jacob Utter. He has a store, and owns several farms. He stated that Ayrshire cattle were rather tender for a Canadian winter, but that a cross between an Ayrshire cow and the Durham bull was the best breed they possessed; that a good cow would produce milk to make 3 lb. of cheese per day; that nine cows averaged 23 dollars each, or £4.12s., for six months. He mentioned that the general return for wheat throughout the county was 25 bushels per acre; oats, 50 bushels; barley, 35 bushels, and potatoes, 250 bushels. He gave the following rates of wages as applicable to the district: Man-servant, 20 dollars or £1 per month, with board and lodging; or for 12 months, 150 dollars, that is £30; maid-servant, 5 dollars or £1 per month. The following were the retail prices of various articles, given by him and converted into British money: Steak, 4½d., other beef 2½d. to 4½d. per lb.; Rio coffee, 1s. 0½d. to 1s. 5d. per lb.; sugar, 3½d. to 5½d.; tobacco, 1s. 0½d. to 2s. 6d.; bread, 2 lb., 6½ cents, or 12½ cents for 4 lb. loaf 6½d.; pork, 2½d. to 6d.; ham, 6d.

Having arrived at Sarnia, I made the acquaintance of Captain L. M. Morrison, of Corunna (Moore County), on the St. Clair River. His farm consists of 200 acres. I did not visit it until my return from Manitoba, but I will here state his experience. His returns were: Fall wheat, 25 bushels per acre; oats, 30 to 50 bushels. Of potatoes he just planted sufficient for home consumption. Plants them from beginning of April to beginning of May; digs them about 1st September. The following

the rotation he follows: Sows wheat this fall along with grass seed $1\frac{1}{2}$ bushel wheat and $\frac{1}{4}$ bushel grass-seeds per acre (mixture being $\frac{2}{3}$ of timothy and $\frac{1}{3}$ of clover, often half the quantity is sufficient.) Next year, a crop of hay; next year again, another crop of hay (no manure or top-dressing). Lets the land lie two years in pasture. He mentioned that he had land in pasture for four years, but that it was run out when he got it, having been twenty-six years in succession under crop. When a field is broken from lea, he puts oats in it (2 bushels per acre, sown with seed-drill). In some cases, where the land is dirty, he does not crop it the first year, but re-ploughs it several times during the season, and crops it for fall wheat by 1st September. Manure is put on the fall wheat. The land is not under-drained, but surface-drained. It consists of a strong clay with a vegetable mould on top. Clay land is the best land for wheat. Land that a crop of oats cannot be raised off here will raise wheat. It would raise cats if manured. His turnips were sown broadcast—1 lb. of seed to $\frac{1}{4}$ of an acre. Turnips so sown by him this year promise to be a good crop. Putting turnips into old land, they are sown in drills, but the drills are not raised; merely run the turnip-sower on the level surface about 13 inches apart, and thin them 10 inches apart.

Potatoes are planted in hillocks a pace apart. Indian corn is put in from the 24th May to 1st June. The reason for not putting corn in earlier is that it is liable to spring frost. It is put in for cleaning the land principally. Indian corn is cut whilst soft and the shaws green, to have the benefit of the latter for milk cows, as the shaws are better for cattle than hay. The grain is not sold, as producers in Canada are unable to compete with the United States.

Price of wheat, 1 dollar per bushel of 60 lbs.; barley, 60 cents per bushels of 48 lb.; oats, 34 to 38 cents per bushel of 32 lb.; potatoes, 40 cents per bushel; good timothy hay, 10 dollars, or £2 per ton; Indian corn, 30 cents

Of the two farms of 100 acres each which Captain Morrison owns, one is fully cleared of wood, the other is half cleared. He has in one farm nineteen acres under oats and corn, twenty under barley, twenty-two under hay and wheat, seven and five under hay, seven of orchard land, twelve under wheat, and the remainder in pasture; and in the other farm, fifty acres under wood, the remainder hay and pasture. He has in all 400 apple-trees and twenty plum-trees. He can sell 600 bushels of apples, all grafted fruit. His stock consists of twelve cows, twenty-eight head of young cattle, from half a year to three years old. The cows yield from $3\frac{1}{2}$ to 5 gallons of milk per day during the grazing and feeding months. Milk weighs 8 pounds to the gallon, which gives from 30 to 40 lb. of milk, or 3 to 4 lb. of cheese per cow per diem. He usually gets from 7 to 10 cents, or from 3 $\frac{1}{2}$ d. to 5d. per lb. for cheese.

Price given for fat cattle is 4 $\frac{1}{2}$ cents per lb., live weight; usual weight is from 1050 to 1100 lb., but he has had them as high as 1400 to 1500 lb. The proportion for dressed beef is 58 lb. per 100 lb. of live beef. The price of milk cows, any pure breed, is 25 to 35 dollars, that is £5 to £7; but he had been asked £20 for a thorough-bred Durham cow. Three-year-old steers, cost 35 dollars each, or £7. Average weight of sheep, 80 lb. Would pay for an imported Leicester tup 30 dollars, or £6, but usually gets them amongst his neighbours at from 5 to 10 dollars, that

is £1 to £2. Draught-horses sell at 100 to 150 dollars, or £20 to £30 each, being from 15½ to 16 hands high; average weight of a horse is 1250 lb. He has two mares weighing 3000 lb., and 17 hands high which he values at 400 dollars, or £80 for the two. Pigs are either Suffolk or Berkshire. Coming in in spring, and killed next February, they generally weigh 250 lb.; price 6 to 7 cents per lb. Wool sells at 31½ cents, or 1s. 3¼d. per lb. Lambs at 3 dollars or 12s. each.

| | | |
|--------------------------------------|-------------------------|------------|
| Man servant, boarded, gets | 15 dollars, or £3 | per month. |
| Lad servant, " " " | 8 " or £1 12s. | " |
| Maid servant, " " " | 5 " or £1 | " |
| Man servant for two months..... | 20 dollars | " |
| Man employed per day during harvest, | 1 dollar per day. | |
| Taxes on 200 acre farm, | 27 dollars, or £14. 8s. | |

I sailed from Sarnia, at the foot of Lake Huron, on board the steamship *Ontario*, Captain Robertson, bound for Duluth, a town in Minnesota at the head of Lake Superior, and had for fellow passengers several Canadian farmers. The following is the rotation followed by Mr. Fekford, near Dunkeld Station, County Bruce, Ontario. He breaks up the field sows it with pease; when pease are removed next year, he ploughs and sows it with wheat in the fall, about 15th September. Next year again the wheat crop comes off at the end of July; he then ploughs it, and in the winter takes out his manure and puts it heaps on the field. As soon as the land is dry in spring, he spreads and ploughs it in. About 1st June he drills it up and sows turnips, twenty-two to twenty-four inches apart, and thins them at from twelve to fourteen inches. His first ploughing is as deep as the team can afford—about 8 inches. The soil is clay.

We left Duluth by rail for Winnipeg.

From what could be seen that evening on the railway cuttings, the soil was black vegetable mould. I could see that a great level tract, interspersed with swamps, formed the general feature of the country.

Night having come on and rain, we arrived at St. Boniface, opposite Winnipeg, under most inauspicious circumstances. The streets of Winnipeg came into view by light of the windows, but they were mud. It was with a feeling of relief that we got landed at our hotel. The landlord, who was a Canadian Highlander, received us kindly, and, after some trouble to himself, owing to the lateness of the hour, and the absence of waiters and others, got us as substantial a supper as the circumstances could afford. The house, however, was fully occupied. I got a shake-down and spent the first night in the Prairie City pretty comfortably. After breakfast an English fellow passenger and I went to St. Boniface in search of our luggage which was to be examined. We grudged the 50 cents each that were paid on the preceding night, and were determined to walk rather than be fleeced again. The morning was dry, but the wooden pavements were as slippery as glass with the greasy mud. We reached the Red River, and crossed in the ferry-boat, which was of great beam and capacity, and could take not a few buggies, waggon, etc., with their horses and occupants, over each time. I forgot the fare paid. We reached the opposite side, and then saw the steep bank which we descended on the previous night, which we now ascended with great

difficulty. We soon thereafter got our luggage passed by the Custom-House officer. A person with 'checks' asked us if we wished our luggage sent to our hotel. We agreed that it should be sent, and had to pay 75 cents for two articles, or 150 for four. We smarted under this, but there was no help for it. I suspect that before we got the luggage to the hotel, and paid the ferry both ways, it was a pretty expensive item. My companion and I then called upon Mr. Hespeler, and received a map and printed regulations respecting the disposal of certain public lands for the purposes of the Canadian Pacific Railway. He also gave me a jotting of the route he suggested I should take, in order to see the country. Several things combined to prevent my following his route. I had, therefore, to devise a route for myself. By the time the call was made, and another call at a bank, we found that the steamer for Portage la Prairie, which was the place I intended proceeding to, had sailed up the Assiniboine; and as there was no stage till Monday I had nothing for it but to wait at Winnipeg.

In the interval, having been advised by Mr. Sinclair, Miller Street, Glasgow, to call on Mr. Gerrie, Winnipeg, who owns land at Sturgeon Creek, I did so, and Mr. Gerrie kindly offered to drive me to his farm when the roads became passable. At present they were absolutely impassable. I was, therefore, somewhat down-hearted at my bad fortune in losing the steamer and being detained at Winnipeg, but bore up the best way I could. Meanwhile, I was introduced by Mr. Gerrie to Mr. Bathgate, M. in Street, Winnipeg, who informed me that coal had been discovered on the Souris River, and is in course of being worked, and some of it brought down to Winnipeg. He said that a railway is likely to be constructed between Winnipeg and the Souris River, also that coal had been found on the Pembina Mountain. Further, that great quantities of coal, of the very best quality, had been discovered on the Saskatchewan River, but that, in the meantime, this was very far distant. He also stated that on certain parts of the Canadian Pacific line of railway not only coal but other minerals were reported to have been found. Mr. Bathgate took me to an office in Winnipeg where I procured a specimen of the coal from the Souris River, which I have in my possession now.

The following is the experience of Mr. McCorquodale, Headingley:

He left Craignish, in 1852, for Canada. Had many hardships when he came to Canada. Bought 160 acres at 1 dollar per acre; had to clear it all of wood. The land was in the township of Greenock, back of Kincardine, Lake Huron. He got on very well there. Two of his sons and himself, three years ago, came to Manitoba to see the country. It pleased him so well that he did not return to Canada. His sons returned temporarily. He himself spent six weeks travelling through the country, looking for a suitable place. He did not sleep in a bed all that time. He took this farm by share from the proprietor, Mr. Cunningham. Mr. McCorquodale's terms were to work the farm and get half the profits. During the first year he looked out for a suitable place elsewhere, and purchased one of 320 acres for himself, and one of 320 for his son, in the south of the province. There is a good dwelling-house on each farm. The farms are partly sowed and partly planted, ready for his going there next month. I drove through these farms on a future day. They were next to the Mennonite Settlement, on the way from Pembina Mountain. Other four sons bought

each 320 acres at the back of Rock Lake, about 60 miles farther west. He considered that Manitoba was very far before that part of Canada he came from, but the roads, he said, were very far behind. This was certainly a great inconvenience to new comers. 'Anyone coming here,' said he, 'taking up a house, has nothing to complain of, comparatively; but if one has not got a house, he must prepare to go over the country and pitch his tent, and that is not always agreeable.'

The following is a statement by Colin, his son, of the capabilities of the land presently farmed by his father:

'Wheat (2 bushels sown per acre) produced 35 bushels. The wheat is sown in spring. Fall wheat is not generally sown in Manitoba, but a test has been made, and it has succeeded. Reaping commences in August. The land is ploughed right up that same fall, when wheat is sown again in spring in succession for years. Weight, 64 lb., never less than 60 lb. per bushel.

'Oats average 75 bushels per acre, but it is not unusual to take 100 bushels off. Sow 2½ to 3 bushels per acre. Oats weigh 34 lb.

'Barley does well. Sow 2 bushels per acre, returns 60 bushels.

'Potatoes—3 bushels planted produced 87 bushels; 400 bushels have been raised per acre, but not on his father's farm.

'Turnips do well.

'Indian-corn does not ripen. Farmers cut it green and it makes an excellent feed.

'Cabbages, carrots, lettuces, parsnips, cucumbers, melons, squashes, etc., do well.

'Have not yet grown apples. Old settlers have grown them.

'Prices—Wheat, 65 to 105 cents; oats, 42 to 75 cents; barley, 60 to 65 cents; potatoes, 50 to 125 cents. The two prices are fall and spring rates.'

All round is a grazing country. If a man cuts as much grass as will feed his cattle, it is then suitable for grazing.

The hot weather begins in June, about the 1st. June is the wet month; more rain falls in it than in all the other months.

July is hot, with occasional thunder-showers.

August, warm and dry.

September, do.

October, cool but dry.

November, winter sets in about 10th. It sets in with frost and occasional falls of snow, but not much snow.

December, snow falls about 20th. The greatest depth on the level is 22 inches.

January, snow falls.

February, do.

March, begins to get a little warm; about 15th begins to thaw.

April, snow being off at latter end of March, begin to plough and sow.

Weather pleasant for working.

May, usually fine weather, and devoted to sowing purposes.

The months of March, April and May are springs; October is the fall.

Labour.—Farm servants 16 dollars per month, 24.

Maid servants 6 " " £1 4s.

Day labourers, 1½ " to 1½ dollar per day.

Taxes.—No taxes till this year, except the school-tax.

Water is very good in his place—the very best, pure spring; but in some other parts it is impregnated with alkali, and of a saltish nature.

Soil.—If the grass is short and smooth, and not a close sward, that ground is not good. If the grass is long, close sward, and the soil black clay loam, that ground is good. Manuring the alkali land with stable manure makes it good. The soil where alkali is, is of a sticky nature, and manure loosens it.

N. B.—I found this disputed elsewhere. Some say that two crops of beet absorb the alkali, others laugh at the idea, and say, "Have nothing to do with it.

Grain is sold without any trouble to merchants.

Milch-cows average 35 dollars or £7. They can be bought at that in the country easily. Cows are a cross between native cattle and Durham bull. Team of horses cost from 250 dollars to 300 dollars per pair, that is £50 to £60. Team of oxen, 140 dollars to 180 dollars, or £28 to £36. Mrs. McCorquodale says a cow will make 100 lbs. of butter in the season, from May up to the end of September. Price, 20 to 25 cents—yielding £4 to £5. In winter the price is 50 cents. Sweet milk cheese is 20 to 25 cents. Eggs, 25 to 35 cents per dozen. Poultry, 1 dollar for young turkeys; 3 dollars for gobbler, and 1 dollar for turkey hens; 25 cents for common hens; 1 dollar each for ducks; 5 dollars for a pair of geese.

I left Headingley next morning, driven in an Indian cart, and proceeded to the River Sale. We passed through three very bad swamps, from three-quarters to one mile broad, and of indefinite length. These swamps might be drained into the Assiniboine and Sale Rivers without much difficulty. The Indian pony, Jeannie, dragged her owner and myself through the swamp and over the prairie grass, eating a bite and running as she ate, without being in the least fatigued. Her driver used neither whip nor switch, but only a kind word of praise, which she evidently understood, or a word of caution which she understood equally well, or an appeal to energy, which set her all aflame when she came to a difficult spot. She was the best of ponies. Her owner's name was Elnou.

Mr. Alex. Murray, of the hostelry of the River Sale, a branch of the Assiniboine, has a stock of twelve cows. The spring was so wet that he did not sow wheat. He says the carriage of wheat to Winnipeg takes 25 cents off the price. He mentioned that he had a farm for sale in the county of West Marquette, parish of Portage la Prairie, of which he gave me both particulars and price.

We left the River Sale next day in company with a Canadian, he being on horseback. We were both bound for the Boyne settlement. We passed some very bad sloughs and went through three large swamps. The prairie grass was very good and abounded with dog-roses, which dotted it all over, growing about eighteen inches high, and which were very beautiful. The principal grasses were bone-grass and buffalo-grass, a brown grass said to be good for cattle, also goose-grass, said to be very good for horses. These grasses indicate good soil. There is another grass in the prairie called by some arrow-grass, by others spear-grass. When drawn and thrown it sticks like a dart, and is bad for sheep and cattle. It is always avoided for hay. The arrows had dropt off when I was in the country. We arrived at Mr. Johnstone's farm on the Boyne after a long journey, during which the Canadian horseman was left behind, his horse having become exhausted,

and he himself being obliged to dismount and walk. He was close to a farm at that juncture, which relieved my apprehensions for his safety.

We sojourned with Mr. Joseph Wells Johnstone, who came from County Oxford, Ontario, in 1870, and settled on this farm. Since he came to Manitoba his wheat has averaged 32 bushels per acre, but he has thrashed it at 52 bushels and at 60 bushels, and five years ago at 48 bushels. Last year it was 20 bushels. He sows 1 bushel and 5 pecks to the acre.

As to oats, he considers this the best of countries for oats, which weigh 42 lb. per bushel, and produce 70 bushels per acre. He has known, at Headingley, a field of ten acres produce 1010 bushels, or about 100 bushels per acre.

Barley weighs from 48 to 52 lb., and an acre produces from 50 to 60 bushels. Finds a market at Winnipeg, which is sixty miles, distant from this. He grows no Indian corn. Price of barley last year, 60 cents; oats, 50 cents; wheat, 1 dollar; potatoes, 50 cents per bushel; butter, 25 cents per lb; pork, 10 cents.

The system he adopts is: Starts ploughing about 15th June, and breaks land till 15th July. Leaves it lying till following fall. This ploughing is as shallow as possible—say 2 inches—and from 12 to 14 inches broad. In the fall he backsets it—that is, ploughs it the same way, being 3 inches deep and 12 to 14 inches wide. He harrows it in spring, and sows it with broadcast seeder. Has a 10 horse power thresher; charges 4½ cents for threshing wheat 3½ for barley, and 3 for oats. Sows timothy and white clover. Timothy is a splendid success; has one piece which he cut in July, and expects to cut it again before winter. Mangel wurtzel does well, and so do turnips; also onions, carrots, gooseberries, currants, and rhubarb. Buckwheat grows well, so do cucumbers, melons, squashes and strawberries.

With regard to flies, he says that the bull-dog is dreadful in July on horse and cattle—makes a horse lean, and he won't eat. The mosquitoes need no comment; they are very troublesome. The buffalo-gnat is very bad for horses and cattle in June and July. There is also the sand-fly, which is not very bad, but is found where there is high grass and scrub.

May is a very nice month.

June, very wet.

July, very hot; hotter than Ontario—up to 100° in the shade.

August, showery and cool.

September, fine weather.

October, very fine month.

November, fine month; clear and frosty.

December, snow—1 foot average; freezes very hard.

January, very cold; thermometer froze up last winter.

February, cold month.

March, not so cold; snow begins to melt.

April, fine month.

The soil is black vegetable mould and clay bottom. The water is spring water. The water is good in the Boyne settlement. He says the heat, even when the thermometer is at 80°, is not felt so much as in Ontario, as there is always a fresh breeze. Although very cold in winter, he says that cold is more endurable than in Ontario, there being less changeable weather in Manitoba. He spoke of the Indians dying in the spring of the year from consumption, but attributed this to their being careless as to keeping their feet dry.

He has seven cows and three teams of horses. I took samples of oats and wheat. He has one crab-apple tree bearing fruit, of which he is very proud. Mr. Johnstone added: 'In Ontario all I could do was to make a living; here I have made money.'

I should have mentioned that we passed the Poplars before coming to the Boyne settlement. We passed Tobacco Creek settlement, which lay east of us.

We started on the morrow for Nelsonville, but were overtaken by Mr. Inman, of the Boyne, who owns 800 acres of land there. Mr. Inman spoke of a blue flower that always indicated, by its presence, good water. He mentioned that he paid 10 dollars for 160 acres, and got 160 acres for pre-emption price. He bought scrip for the balance. He has 60 acres in crop.

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|--------------------|----------------------|----------|
| Wheat will average | 30 bushels per acre, | 60 lb. |
| Oats | " " 40 | " " 34 " |
| Barley | " " 30 | " " 48 " |
| Potatoes | " " 250 | " " 60 " |

He stated that he does not make butter, but rears cattle. The price of wheat is 1 dollar per bushel; oats, 65 cents; barley, 60 cents; potatoes, 25 cents in the fall and 50 in the spring; butter, 20 cents. Young cattle can be bought in the fall for from 7 dollars (£1 8s.) to 10 dollars (£2) per head. Hay can be made here, deducting expense, tear, and wear, for 1 dollar (or 4s.) per ton. Two tons of hay, with some straw, will winter a yearling well. A three-year-old steer is worth from 35 dollars (£7) to 50 dollars (£10). Hence he considers it is more profitable to rear cattle than to grow wheat. This is the way he put it: 'Wheat was worth 1 dollar per bushel in Winnipeg last season; the year before, 60 cents only; 40 bushels can be taken in a sledge in winter over the ice, by a team of oxen to Winnipeg, sixty miles distant. It takes five days to make the round trip.

| | |
|---|--------------------------------------|
| ' A man and his team is worth 2 dollars 50 cents per day. | \$12 50 |
| Expenses on road not less than..... | 8 00 |
| | <hr/> \$20 50 |
| Price of 40 bushels, at \$1..... | \$40 00 |
| Off expenses..... | 20 50 |
| | <hr/> 40 bushels realise.....\$19 50 |

' Actual price of wheat 48 cents, or 2s. per bushel.'

He says that a man on the river brought in 12 sheep from Ontario and they are doing very well, as he has lost none yet. Prairie dogs are dangerous for sheep. Water is good, and there is good timber near him. The Dominion harvesters are very bad [N.B.—The blackbirds who feed on wheat]. Wages, 15 dollars (£3) per month for farm servants, 25 dollars (£5) per month for haying and harvest months; 6 dollars for maid-servants

(£1 4s.). Taxes—School-tax is 7-16ths of a cent per 1 dollar, according to the value of the land and other property; he is also bound to give three days of road labour for each 160 acres he owns, or pay 1 dollar 50 cents per day.

The province is divided into municipalities, in each of which there is a warden and five councillors. In the municipality in which Mr. Inman lives, every man takes care of his own cattle, and is responsible for any damage done by them to his neighbours' crops from 1st April to 1st October. After that they are free commoners.

Pigs are profitable—8 dollars per 100 lb. They are fed on cracked barley.

Fife wheat is sown mostly on the Boyne, also red chaff wheat.

Oats—black oats chiefly, and white oats also are sown.

A man coming here to settle, should start with oxen for the first two years, until he gets enough crop to feed the horses. Having to erect a house, his horses are standing exposed to the weather, whilst the oxen will take care of themselves.

Having arrived at Nelsonville, I washed with soap and water in the hotel, and felt an uncommon irritation over my face, whilst my head and beard seemed to be glued. I was told that this arose from alkali water, and that no soap should be used in washing.

Mr. Nelson, founder of the town, stated that when he searched for water and digging his well, which is the well from which the inhabitants obtain drinking water, the vegetable mould was 18 inches to 3 feet deep; then 3 to 4 feet of marly clay; then 5 feet of solid grey clay; then black soapstone. The water is generally found between the clay and soapstone. 'If not successful,' added Mr. Nelson, 'try another place.'

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|----------------|----------------------------|--------------------|--------------|
| Wheat produces | 20 to 30 bushels per acre. | Weight per bushel, | 64 to 66 lb. |
| Oats | " 40 to 50 | " " | " 38 |
| Barley | " 40 to 50 | " " | " 50 |
| Potatoes | " 200 | " " | " |

Mr. Nelson came to Manitoba 1877. He had planted cucumbers, potatoes, cabbages—very weakly plants—on the 28th June, and they all came good.

Beets, turnips, and mangel wurzel do well.

Mr. Nelson corroborated previous statements as to the weather, remarking that the thermometer showed 110° in the shade in July, but that one could stand the heat better in Manitoba than in Ontario. He thought that the cool nights helped it. There are only two or three nights in the year, he said, that they don't use blankets.

He remarked that the thermometer froze last winter, but that the cold was endurable when there was no wind. He is a miller by trade, having grist mills which grind wheat, etc., at 15 cents per bushel.

Nelsonville is a thriving little place, and the inhabitants are kindly. It is destined to be a place of considerable trade, as it is on the track to Turtle Mountain, which is fast settling up. Mr. Nelson showed me next day tomatoes sown on the 10th May, which promised to ripen. I took samples, but they did not keep. He showed me cauliflowers, estimated by him at 4 to 5 lb. weight. Potatoes—Early Roses keep till the new ones

come again. Plant them 1st May to 1st June. I took two samples, and one potato from a seed planted on 3rd July. When the hill was dug there were seventeen potatoes on it, the sample taken being the biggest. I also took an average onion.

The Pembina Mount is a rising eminence, so gradual in ascent that I could not discover that I was ascending it. It is pretty thickly wooded from Township 4 north, but has not such uninterrupted good prairie. There is said to be a stretch of sandy land not very good for settlement beyond it, but good land comes again at Turtle Mountain which is well wooded. Crystal City is on the east side of Rock Lake.

The Rev. Mr. Edwards, whom I met stated that there was plenty of land all through the country that could be got from men holding the land on Crown patents. Tobacco Creek is considered the best settlement in the country. The soil is loose black vegetable mould, clay bottom. The water is very good there; wells can be had from eight to twenty feet deep. Wood is rather scarce, being from six to eight miles distant. Blackbirds (or Dominion harvesters, as Mr. Iuman called them) resort to woods and water, but will not go far away from a good supply of both. All the land about Tobacco Creek is owned by private individuals. Mr. Edwards stated that 5 dollars an acre was the highest price asked for land, and from the location he considered it reasonable at that price.

Having now turned towards Mountain City we passed Minniwashtey, meaning 'good water,' also Adamson Creek and Deadhorse Creek. I was struck with finding boulders of granite on the road to Mountain City, being evidently floated there during the glacial period.

The number of houses that Mountain City rejoices in is eight, but it will probably be a big place by-and-by. After leaving the Mountain City the stage proceeded to Stoddartville, where we put up for the night. Mr. Stoddart had very good crops. Next morning we started early, passing Calamity Creek and Lufey Creek, and Irish settlement, and the farm of Mr. Windram, M. P., Bluff, South Dufferin.

Ultimately, after passing various farms, amongst others, Mr. McCorquodale's, we came to Austervitch, a Mennonite village. Before coming to it we saw a great patch of alkali land. The crops in this neighbourhood were light.

We could, on looking back, now discover that we had descended the mountain, but the descending was not realised in the act. The Mennonites have very good crops. Their cattle pasture together in great herds. They had steam threshers, and all their houses were neatly thatched. They also had machine-houses to hold their agricultural implements.

An accident happened to our stage by the rim of the left fore wheel coming off, which we repaired under peculiar circumstances. We came soon to County Touro, Rhineland, and met a party of emigrants. We passed Snipe Lake, and perceived a horse threshing-mill treading the corn under foot, according to the Eastern custom. We met the Governor of the Mennonites driving out. A large windmill made of wood was in one of the villages. Ultimately we came to Nyonicch, and dined in a Mennonite cottage. Everything was very clean and tidy. Sunflowers were cultivated in the gardens, as were also poppies.

We came next to Grangehall, ultimately to the River Moraye, and saw Smuggler's Point, Dakota, not far off. Finally we crossed the Red River,

and entered the thriving little city of Emerson. The city of Emerson contains about 1,500 inhabitants, and it appears to be a place where a good business is done. The mud is not quite so bad as that of Winnipeg, but it is bad enough.

On Monday I returned to Winnipeg. The streets by this time had dried up, but the ruts made driving very unpleasant.

The following are the prices of certain articles at Winnipeg: Breaking plough, 25 to 29 dollars; common plough, 16 to 22 dollars; reaper and mower combined, 200 dollars; horse hay-raker, 35 to 45 dollars; waggon, 95 dollars; spades, 1 dollar; shovels, 1 dollar 25 cents; hay-forks, 75 cents; manure forks, 1 dollar; harrows, 15 to 35 dollars; two hoop pails, 25 cents; three hoop pails, 30 cents; 16 in. tubs, 90 cents; blankets, 3 dollars; wood, 20 to 40 dollars per 1,000 feet; dressed wood, 30 to 60 dollars; shingles, 6 dollars per 1,000; lathes, 5 dollars per 1,000; nails, 5 dollars per 100 lb.; doors, 2½ dollars; sashes, 1 dollar per pair; single harness, 20 dollars; double, 35 dollars; hay, 7 to 12 dollars per ton.

The population of Winnipeg is from 8,000 to 10,000, and that of the Province of Manitoba is said to be 100,000. The Indians are supposed to number about 4,000. There are about 13,000 half-breeds, who are a mixture of English and Indian, Scotch and Indian, Irish and Indian and French and Indian. The Mennonites are Russian, and number about 7,000. There are about 18,500 French in the province.

The Province of Manitoba is in latitude 49° 0' to 50° 2' north. It contains 9,000,000 acres, and is divided into four counties—Selkirk, Provencher, Lisgar, and Marquette (and these into twenty-four districts,) each of which returns a member to the Dominion Parliament. The land in the province is divided into ten strips.

1,400,000 acres of land are reserved for the Indian half-breeds and 512,000 acres for the Mennonites. The section throughout the province belonging to the Hudson Bay and school districts are likewise reserved. There are also Indian reserves.

Unless the land held by speculation is thrown open the tide of emigration must flow westward; so that until the country is opened by railways, its future prosperity must undoubtedly be greatly retarded. The wild animals of Manitoba are deer; bears, brown and black; prairie wolves, not formidable to man, but destructive to sheep; foxes, badgers, skunks, gophers, and the common grass snake. Grasshoppers and frogs. Locusts were very destructive some years ago, but they have not reappeared. It is noticeable that all wild animals fall back with the advent of the white man. Buffalo bones are common on the prairie, but no buffaloes. Although I went through what was last year a bear country, not a bear was visible this year. The mosquitoes and other fly pests become less venomous as agriculture advances. As for fowl, there are ducks, bittern, prairie chickens, and partridge; and of birds of prey, hawks of great size; also several others whose names I did not ascertain. The prairie does not look like a solitude; there is always plenty of life moving about. The grass reminds one forcibly of fields of waving ryegrass. Trees are found along the courses of streams. In some parts they have to drag wood a distance of twelve miles. Compressed straw and manure is used for fuel by the Mennonites, though wood is not far distant from their settlements.

Bad land is easily known from the smoothness of the surface, the sort of bluish-green of the grass, and the very sickly hue of the thin vegetation. There is no alkali where timber grows. The wolf-willow, a sort of scrub, grows on good land. Moles or gofers show hills which, if of black clay or loam, without grey or white clay or gravel, indicate good land. When light clay or gravel is turned up, the land is not desirable.

The best time to look at land is in July, August or September, when the grass shows it. If one goes in March he is in danger of his animals being starved. If he goes in June the roads are impassable, and he is liable to be stuck up. A farmer going can travel better and cheaper by purchasing his horse and buggy and afterwards selling or keeping them. After selecting his land he has to secure it at a land office. Then he has to purchase material for a house and to build it; then to break up his land. He has then to go back for his family. One way or another, he will be put to immense inconvenience and considerable expense before he can settle down.

I returned to Ontario *via* Sarnia, by the steamer *Quebec*, Capt. Anderson, and visited Captain Morrison's farms in Corunna, being afterwards driven by him over the township. On his farm the red clover grew naturally. His apples were the golden russet, the pear apple, the snow apple, the strawberry apple, Rhode Island greening, northern spy, Newton pippin, etc. The wheat-straw was put up in stacks for winter feeding. The cattle came round it and helped themselves. A young bull came to us tossing his head. Ah, said the captain, he is missing his salt. All the cattle get an allowance of salt. He had splendid timothy hay stored up in his barn. He showed me a stump extractor. His farm evinced that he was an energetic and successful cultivator of the soil. A sailor till four years ago, he is by no means the worst farmer on the St. Clair. His lands are well fenced, his fields are levelled, and he is now underdraining the soil. The water used on his land is from the river. It is allowed to be less tinged with alkali than any water in Canada. Since his return from Prince Arthur's Landing on Lake Superior, he started underground draining.

The weather at Corunna, said Captain Morrison, is a bluster of snow in March, which soon disappears. In April the frost gets out of the ground, and he ploughs about the 10th. May is fine weather; puts in balance of seeds, and on to 20th June, and then there is rain. July is the corn harvest for fall wheat; August, the general harvest. September, sow fall wheat. October, fine month. November, broken Scotch weather. December, frost stops the plough. January, winter; snow 1 foot. February, snow; cold.

He told me that there were several farms in his neighbourhood for sale. He also told me of a farm belonging to his father that he would wish sold. It is in the township of Finch, Stormont, Ontario. I met at Sarnia several parties acquainted with people at home.

On returning to the township of Aldborough I made further inquiries as to returns. Mr. Stalker's returns of wheat averaged 20 bushels per acre oats, 60; potatoes, 20 returns per bushel; barley, 160 bushels from 12 bushels; but this was not good, the season being very unfavourable. During my absence they had a very wet harvest. He was wintering 15 three-year-old steers feeding with chopped stuff, peas and oats. Peas not doing so well with the bug; he uses Dr. Taché's antidote. They put all the manure they can spare on the wheat land, sow it with wheat and

timothy and clover seed (5 lb. timothy and 5 lb. clover to each acre). The average price of a three-year old steer is 40 dollars, or £6. Visited Hector McPherson, Iona, from Rhunahoaran; Duncan McLean, West Aldborough. He thrashed 600 bushels of wheat from 21 acres, sown with $1\frac{1}{2}$ bushel seed per acre; 40 to 60 bushels oats from 2 bushels sowing; 20 bushels barley per acre. Has 116 acres; 90 under cultivation. Taxes, 25 dollars. His rotation is wheat sown in fall, and clover among the braird in spring. Cuts it in July. Sometimes has a second cut of clover for seed. Next year he lets the clover grow up and ploughs it under, and then gives fair crop of wheat again. The townships here are ten miles long by ten miles broad. Mr. Dyke, in this township, sowed 12 acres wheat, and thrashed 277 bushels. Raised 50 to 60 bushels Indian corn per acre. Grazing is from 2 to 3 acres per cow. Good hay, 2 tons per acre; light crop, $1\frac{1}{2}$ ton per acre. Turnips do not grow well in hard clay. I saw many other Kintyre people—Mr. Ramsay, Mr. Stewart, and visited a cheese manufactory owned by James McLean.

I went to Lorne or Bismarck, where I met with Mr. A. Kerr, from Kilmory, Lechgilhead. Left in 1818. Was in the woods all his life. His wheat averages 20 bushels per acre, weight over 60 lb.; barley, 30 bushels per acre, weight 48 lb. He stated that 12 acres grazed five cows for him all summer. A good cow should make 35 dollars out of cheese; has cows that exceed that. Leicester sheep require great care; South Downs are best.

I met with a German gentleman, J. C. Schleibauf, who gave me information as to shingles, flooring, etc.: The former, 2 dollars 25 cents, per 1,000; the latter, 4 inches to 6 inches, 18 to 20 dollars per 1,000 feet. 1,000 shingles cover 100 square feet. Bricks worth about 5 dollars per 1,000; drain-tiles, $2\frac{1}{2}$ inches, 9 dollars per 1,000; 3 inches, 11 dollars; 4 inches, 12 dollars; length, 12 inches. Land can be bought here from 20 to 30 dollars per acre.

I visited St. Thomas; took rail for Dunkeld, County Bruce, Ontario. Saw splendid land on the line from London City to Harriaburgh. Passed Guelph. The land here seemed to be gravelly clay with loam above. Arrived at Dunkeld station late. Proceeded to Southampton, on Lake Huron. This country is not very prepossessing. Drove from Southampton to Owen Sound, passing the Saugeen River, Chippewa Hill, and an Indian reserve of 12,000 acres. The soil is light and sandy. A good deal of bark is made from the hemlock-tree for tanning; sells at 4 dollars per cord—that is, $8 \times 4 \times 4$. Cedar is used for paving.

Passed the Saugeen River. Mr. Vandrick, who owns horses and buggies for hiring, states that he sold horses at 112 dollars each for Duluth. The expenses to the purchaser were 20 dollars for duty and 8 dollars for freight.

There is a settlement at the Lake Shore of Lowland Scotch, who go in for feeding. They pay high prices for bulls, have good cattle, and exhibited steers at Philadelphia.

We passed through the township of Keppel. We skirted along the Potawatamie Falls. By and by we approached Owen Sound. There is an immense ledge of limestone in its vicinity. The town itself is beautiful compared to other towns which I had occasion to visit. There is a market in Owen Sound daily. The price of wheat here is 95 cents per bushel.

Donald McKay, 4th Concession, Sydenham, mentioned that fall wheat averaged 30 bushels per acre, but this is from land of which one-third is covered with stumps. When stumps are removed, such land yields 40 to 45 bushels per acre. He considers this the best wheat-producing district in Canada. The drawback here is that, having commenced poor, settlers were obliged to take crop after crop off the land till it was cleared. Now that they are getting up in the world, they intend to give it rest and to summer-fallow it, and by this means believe its fertility will be increased. Oats yield from 40 to 50 bushels per acre; barley, 45 to 50. Turnips grow to a very great size. Grow apples 13 inches in circumference.

A Mr. McLean, from a second year's crop of wheat, produced 100 bushels from 2½ acres, as stated to me; that is equal to 40 bushels per acre. The price of cattle and horses corroborates the price already given elsewhere, and the same for other produce. Average yield of hay, 1 to 1½ ton per acre. White clover is natural to the soil.

The average number of cows kept on a 100 acre farm is five, with their followers. I saw here Malcolm Gardener, from Margmonagach, Kintyre and a brother. I also saw Francis McNeale, from Crubasdale Shore; Hugh McDonald, a native of Islay, and others. I passed five farms belonging to Islay men from Port Ellen. The following is the system adopted by some. After breaking up a field it will fetch five good crops of wheat in succession, or it may be worked after this fashion:

1st year, sow it in fall with wheat.

2nd year, oats, or spring wheat.

3rd year, another spring wheat crop.

4th year, another spring wheat crop.

5th year, a crop of peas.

6th year, fit for spring or fall wheat.

Put manure on pea or oat ground, and sow wheat.

7th. After that crop, summer-fallow and seed down with timothy and clover. Let that lie four years, cutting grass annually. Pasture two or three years, and it is considered again fit for another crop.

In this township, as in other townships, every man does what he considers right in his own eyes. The great trouble they have is the limestone boulders—a good fault, for limestone rock gives a good true soil. I there-after drove through Holland township, which is twenty-eight years settled, and, like the other, is a beautiful county. English, Irish and Scotch settlers. Country a forest thirty years ago—infested with bears and wolves.

Came to Chatsworth station; visited the fair; cattle not good, but market very good. Went by train from Chatsworth to Toronto. On this line, the narrowest in Canada, our train went slowly—about twelve miles an hour. Four passengers were drovers. The train stopped suddenly. 'What's up? Only poking the cattle.' 'Get up, get up, get up, will ye? Get up!' Drovers were on the line poking the cattle with sticks to make them rise up. After the poking the train goes on again. By-and-by a frantic rush is made to the windows, and thereafter to the bell-ropes to stop the train, and we learn that five of the cattle had leaped out! By-and-by, after a drive of many hours through a poor country, enlivened by many incidents, such as a Scotch terrier racing us, and barking furiously, night comes on, and we ultimately alight at Toronto.

Next day I went to Hamilton to attend the exhibition, but Canadian exhibitions are not like exhibitions in this country. The cattle were not forward, and although the exhibition was partly open, it had not been formally opened by His Excellency the Governor General, and would not be for a couple of days.

The land in the neighbourhood of Hamilton needs no description. It is, according to the people of that quarter, the garden of Canada. But the most of Canada is a garden. The orchards in this region are extraordinary. Clover cut first in June is now (September) cut again for seed. I can easily fancy what a beautiful country this must appear in spring, when the apples and peaches are in blossom. It is literally a paradise. The soil in this district is a deep red. I left Hamilton for a trip to Niagara. The soil becomes of a lighter colour, but the fine vegetable mould remains. The fields show what splendid crops were produced. More orchards, more reclaimed bush—brick and stone houses. It was a relief to see a stone house. Indian-corn extensively grown. Magnificent orchards. It is hopeless to describe the land; it was one panoramic view of sylvan and rural beauty.

We passed the Jordan. I came out at St. Catharines, and drove to Clifton, and visited the Falls of Niagara. The land in this neighbourhood is limestone.

The falls and the banks of the river are subjects for scientists, and would require a very lengthy description. They are valuable geologically, and every stranger should visit them. Having returned to Hamilton, I went to the Exhibition, which was to be officially opened next day. Among the exhibits were turnips of various species, cabbages, savoy, parsnips, beet, squashes, cayenne pods, pumpkins, mangels, potatoes, a fine collection of wheats (spring and winter) from the Government experimental farm, Ontario. The Toronto cordbinder. Thrashers (37 cwt.) and engine (50 cwt.). Prairie Queen ploughs. No cattle forward except a contingent of Hereford and Ayrshires, and a shorthorn steer and one cow. I could not lose another day, in case it might cause me to lose a week ultimately, and therefore, to my great regret, left before the Governor-General arrived.

I then went to Ottawa, and returned by the Grand Trunk to Montreal. The quality of the land along this route, on the whole, is good, though I found that fall wheat, equal in quantity to that of the west, was not raised in it. I called on my townman, Principal McEachran of the Veterinary College, and was very kindly received by him and by his brother, Dr. McEachran, who drove me far into the country, and showed me all objects of interest around Montreal. I was also kindly entertained by Mr. Drysdale, Mr. McNish, and Mr. Alex. Milloy. On the Monday, I started for the Eastern Townships, going over the Victoria Bridge, which is tubular.

Before going to the Eastern Townships I should remark that in the bush in Canada the best land is generally found where deciduous trees most abound. The pine grows on sandy ridges and swamps; on sandy ridges it is of regular growth, on swampy land it occurs here and there. As a general rule, deciduous trees, such as maple, beech, oak, etc., indicate good land.

The drive through the French country was delightful. It is a beautiful

country, and the farms are better cultivated than those on the line from Quebec. The system of fencing with straight rails is now introduced, and the zigzag Ontario rails cease. We pass the river Belœil. The river may be about 200 yards wide, and was of a sky-blue colour, like Lake Superior. We next approached a place called the Mountain, which is wooded to the base of a perpendicular precipice which was lost in fog. The autumnal foliage is rich, abounding in green, purple, yellow, and brown.

The roofs of the churches are of tin, and the spires are also lined with that metal. The effect when the sun shines must be dazzling. The country consists of panoramic views of rare beauty. In the fields, the ridges are not particularly straight—I believe designedly crooked. I have noticed the same phenomena in County Galway, Ireland, and in outfield lands in our own Highlands. I also observed that groves of poplar, which is a sacred wood in Catholic countries, abound in the French country. At length we arrive at Durham. Alder bushes are now seen. These bushes do not grow in Upper Canada, and here do not become trees, as at home. Ultimately we came to the St. Francis River. The scenery here is gorgeous. Painting itself would fail to represent the loveliness of the foliage. A picture such as this would be condemned as unnatural. We pass Richmond, Mr. McKenzie's farm, from Loch Broom; also Mr. Steel's farm. Underground draining is done here. We come to Windsor, where there is a paper-mill. The salmon ascend fifty miles above Windsor. The variegated foliage of the forest is lovely. I never beheld anything more beautiful. Mounds of earth are clad with trees painted in exquisite colours, as Nature only can mix them. Farmhouses and lovely white cottages with green blinds add variety, while the broad river, like a huge snake, coils its way around the base of mountains full of colour. A graveyard on the opposite side reminds the observer that, notwithstanding the beautiful surroundings, man is mortal.

We pass saw-mills, and see whole logs drawn up by machinery in order to be sawn. The river is blocked with rafts.

We arrive at Sherbrooke. My first visit was to Mr. Buchanan, township of Eury—140 acre farm. 'When a field is broken up,' said he, 'oats or barley are put in. Wheat sometimes does well, and in some places better than either oats or barley. Next year potatoes manured, next year wheat, and seed it down with timothy grass and northern clover, sometimes Alsike. White clover is natural to the soil. In poor land the ground is manured for second year crop. It is allowed to lie in pasture till its turn comes round.' When Mr. Buchanan came here six years ago the land was run out. The heaviest crop was a half-ton of hay per acre. He manured the land for two years and cropped it, and laid it out to grass, and first year cut 1½ ton to the acre; the second year 2 ton (part being manured and part not) per acre. In some farms this quantity is taken twice in the same year.

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| Returns—Wheat, 25 bushels per acre..... | 60 lb. per bushel. |
| Barley, 30 to 40 bushels per acre..... | 48 " |
| Oats, 30 to 50 bushels per acre (known to be 60) | 32 " |

The oats are small long oats. Pease, raise them among oats—two-thirds of oats, and one-third of pease. Beans good. Turnips do exceedingly well,

but there is too much work in weeding them. Wheat, 1 dollar per bushel. Other cereals as in Ontario and Manitoba. Buckwheat, Mr. Buchanan said, does well. The more rain it gets the better it will be. It produces 50 to 75 bushels per acre. He sows 4 bushels of oats per acre; wheat, 1½ bushel; barley, 2 bushels; buckwheat, 1 bushel. Indian corn requires more manure in Bury than turnips. 100 loads of manure will produce 100 bushels of Indian corn. Cattle sell 3 to 6 cents live weight. Horses, 100 dollars for good junk (15 to 16 hands); cheese, 12 cents; butter, 30 cents; yearling, 10 dollars; two-years-old, 20 dollars. 1½ acre pasture per cow sufficient; has 5 milk cows and their followers.

Henry Cowan, Gould, Lingwick, stated his returns of
Wheat to be 20 to 25 bushels per acre
Oats, 30 to 40
Barley, 15 to 20 off old, 25 to 30 off new land.

Sold four steers at 27½ dollars each, two and a half years old; bought some of these in the fall at 9 dollars; hay, 6 dollars to 8 dollars per ton; butter, 18 to 25 cents; beef cattle, 5 cents per lb.; store cattle, 3 cents.

Mr. Cowan remarked that this was a very dry season; had resided in Lingwick forty-four years and never saw the water so low.

Ontario, on the other hand, had a very wet harvest, and Manitoba was showery—exceptional circumstances in both provinces.

Mr. William Buchanan's farm:

Made 900 lb. of sugar out of 500 buckets of maple juice. Made 1,600 lb. weight of sugar in the season, which sold at 8 dollars per 100. Was shown the maple trees and the apparatus. Visited Mr. Robert French's farm. He is into the thorough-bred business, and doing well.

Visited the meadows, which produce three tons of hay per acre.

Next day saw a well-manured grass field belonging to Lewis McIver, which also yielded three tons of hay per acre.

Arrived at Compton and drove to the Hon. Mr. Cochrane's farm. Was shown his splendid Durham stock—amongst these the 10th Duchess of Airdrie and three of her progeny, viz., 2 cows and a heifer; 10 to 12 calves from the Duke of Oxford and Matquis of Hillhurst. Saw a thorough-bred white cow—fat—shown at the Dominion Exhibition, Montreal, and which obtained first prize. Shown also a two-year-old imported Ayrshire bull, a very fine animal; also the Duke of Oxford, a very famous Durham. The Duchess of Airdrie is twelve years old, and her descendants have realised to Mr. Cochrane £30,300, being unprecedented in bovine history. Was also shown other cows, all of excellent quality, kept for feeding the thorough-bred calves. Mr. Cochrane does not pamper the Duchess, but keeps her in ordinary condition. He received a friend who accompanied me and myself, very kindly. Saw a splendid turnip field on his farm. His farms are in the highest order of cultivation, and show what that soil is capable of producing when farmed scientifically. His land was of less intrinsic value originally than other lands in the neighbouring townships, but to the observer it would appear now to be vastly superior to any in the district. Of course his success is inducing others to follow his example. There are no collections of field stones studded in heaps over his fields, as may be seen everywhere in the Province of Quebec, and also in the town-

ships about Owen Sound, Ontario, and elsewhere. They are put into substantial stone fences.

There is a plant in the district called the wild sumach, which causes the hands and face to swell if touched. The wild ivy also affects some people even if they come within the wind of it. It is found in Quebec, Ontario, and Manitoba, and also in the States.

I visited at Sherbrooke the Paton Woollen Mills, having received a note of introduction to Mr. Paton from the Hon. Mr. Pope, Minister of Agriculture. These mills are very large. The washing and cleaning machine disposes of 4,000 lb. of Canadian wool per 10 hours, or from 2,000 to 4,000 lb. of fine wool. Saw the dyeing vats, the burr-picking machine, 20 sets of carding machines, 24 spinning mules, each having 336 spindles; 135 looms producing last week 711 pieces of cloth, each 25 yards long; the hydraulic press, the patterns, and the machine shop. The work employs from 500 to 550 hands. It is the largest in the Dominion, and the machinery is of the latest and most approved invention.

Visited the annual exhibition or fair. The best cattle are now sent off to Britain, and consequently the fair exhibits suffer.

I next went to Richmond, and visited the College of Agriculture, being very kindly received by Principal Ewing. He informed me that wheat with him averaged from 20 to 25 bushels per acre; barley, 30 bushels. Oats is generally a sure crop—35 bushels to the acre.

He grounded his students well in arithmetic, algebra, Euclid, and land surveying.

On the 2nd of October I went to see the Quarantine Dépôt at Point Levi, which contained many excellent cattle newly arrived from England. I thereafter started for St. John, New Brunswick. In the journey I passed over a great extent of French country, beautiful landscapes, seeing various glimpses of the bays and havens on the St. Lawrence, and once more beholding ocean's shipping. The most prominent feature in the Lower Canada towns and villages is the churches, which are of immense size generally, and the contrast between these huge piles and the small dwellings is very marked. In the course of time we entered New Brunswick.

The province is divided into eight counties and fifty-nine parishes. The Bay of Chaleur forms its north-western boundary, at the head of which lies Campbellton. Very little farming is done there. It is famous for salmon-fishing, though that industry was not very successful last year.

The salmon go up the rivers Restigouche and Matapedia. There is a salmon-breeding establishment which turns out three fourths of a million of young fish yearly. The young fish, when fit for removing, are taken to other rivers along the Bay of Chaleurs. The salmon is caught by stakenets on the sea-coast, and on the river by fly. Salmon is very extensively exported. A fisherman with a 300 fathom stake net averages 1,500 dollars value of fish during the season.

The specified distance between each stand of nets is 200 fathoms, but this is not always rigorously enforced. Fishing begins 24th May, and ends with the last week of July.

There is a good system of shools in New Brunswick. Education free. Personal property is taxed, and every man from twenty-one to sixty pays 1 dollar poll-tax.

The river St. John is navigable for trading vessels of considerable burden, and small steamers, for about fifty miles of its course. Small craft can get up 150 miles. Among the fish are salmon and sturgeon. The banks are fertilised by the overflowings of the river, leaving alluvial deposits which manure and enrich the grass.

I ultimately arrived at St. John, which I made my head-quarters in New Brunswick. I thereafter returned to Sussex Valley. The soil along the railway from St. John to Rothesay is vegetable mould on a sandy and gravelly subsoil. The rail skirts along the estuary of St. John River, which is wooded and has precipitous, bold cliffs. The scenery is very beautiful. Rothesay to Quinspansia is hilly. There are good farms along the line. The soil from Quinspansia to Nawigewa is reddish. Dyke land, excellent for hay, occurs along the River St. John. From Nawigewa to Hampton there is beautiful green pasture, and much dyke land. Width of river here approaches West Loch Tarbert. The country is beautiful and has a rich appearance. Soil, as turned over by the plough, is becoming, as we travel along, of a lighter red.

Passed Norton Station. The river-banks present splendid grazing. Passed Apohagui; then some Indian wigwams covered with birch-bark.

Arrived at Sussex, and called, 4th October, on Mr. George A. Dobson. He showed me exceedingly good mangel-wurzel. He stated that his wheat produced 25 bushels to the acre (spring wheat); oats, 45. Takes five crops in succession off his hay-ground. Potatoes he planted 4 barrels, and dug 104 barrels. The prolifics were the kind, but they rot more than the others. The red safes have a red streak when cut, are latish, but very good. Has silver dollars, a white potato. Had two oxen (Durhams); would weigh when fat, live weight 3,800 lb. He fed and sold off 33 head of fat cattle last season.

His statement of the weather was that snow falls in December to a depth of two feet, and lasts till March. January and February are the coldest months; hardly any rain in winter months. In March snow begins to decrease. April is rainy. Half of May to half of June is occupied in sowing and planting. May is mild; June, very hot; July, hot, little rain, thunder generally; August, hot, also thunder; September, dry, with occasional showers.

Visited John Graham, from Girvan, at the cheese factory. He conducted the first factory in the province; makes from 25 to 26 tons per season. He mentioned that he knew of many farms for sale. Land has not been so cheap these thirty years, he said, as at present. He sowed 7 bushels of wheat, and thrashed 103, being 29 bushels per acre fully. Last year he had 33½ bushels from 1½ bushel sown, the extent of ground consisting of hardly an acre. Weevil used to be bad, but is not so now.

Oats average 45 bushels, and are sown 1st June, thrashed 2nd September. Potatoes: Considers New Brunswick the best country he ever saw for potatoes—has generally 20 to 26 returns.

Labour is from 60 to 70 dollars per six months—that is, £12 to £14; 14, 16, and 10 dollars per month for haying. Girls, 5 to 6 dollars per month. Milk, 2 to 3 cents; butter, 18 to 20 cents; beef and mutton, 6 to 6 cents. On 550 dollars *ad valorem* a tax of 1 dollar 80 cents is payable, and 1 dollar 25 cents for school. They have to give three days' statute-labour on the roads, or pay 50 cents per day. Ministers are supported by voluntary contribution.

Schools: No house to be more than 2½ miles from a school. A house is seldom more than three miles distant from a church.

Sussex Valley is a good district for Indian corn, squashes, melons, pumpkins, etc. I thereafter drove past Mr. Nelson Oinald's farm. Mr. Charles Haison's—a farmer who goes in for vegetables, carrots, and strawberries, sending them into St. John; he also grows plums, currants, and gooseberries. Mr. Hugh McMonikale breeds horses—from thirty to forty thorough-breds—and has fenced in parks for training them. Passed many farms, all of excellent quality, with splendid orchards attached.

The nature of the soil in this district, as seen from a well in process of being dug, is loam on top two feet thick, gravel two feet, red clay and gravel mixed till down to ten or twelve feet, where water is got.

The forest trees are the pine, tamarac, spruce, birch, alder, cedar, maple, balsam, and birch. Wild animals are the cat, bear, moose-deer, and cariboo. The latter are generally twenty miles back in the forest. Calving cows can be purchased at from £5 to £6; yearlings, 12 to 15 dollars; two year-olds, 20 dollars. The Permissive Act is in force in King's County.

We drove into a different township, and passed through many fine farms. The following is the rotation practised by some farmers. A field in pasture on being broken up, is sown with buckwheat. Next year half in oats and half in potatoes; next year, put potatoes in where oats of last year were; and oats seeded down in potato ground of the preceding year; next year, oats and seeding down. Take hay crop off for three years; pasture for a number of years according to extent of ground.

Mr. Nelson Coates, whose farm I did not visit, stated that his wheat would average 25 bushels, and his oats 35 bushels per acre. He has a 330 acre farm, 160 of which are in cultivation. Cuts 100 tons of hay annually. Winters 60 head of horned cattle. The pasture gives 2 acres per cow taken all through, but in certain parts one acre would graze a cow well. Labour, 100 to 120 dollars for a man per annum; 60 to 70 dollars for six months. Has 22 milk cows.

From a dealer I learned that South Downs and Leicester sheep are the breeds generally in this province, weighing as a rule about 80 lb. They are wintered on hay and grain, and can be purchased at from 5 to 6 dollars, or £1 to £1 4s. Freight to Liverpool, 1 dollar 50 cents from Rimouski on the St. Lawrence. He stated cattle freight to be 14 dollars.

The Sussex Valley is uncommonly fertile, and farms are said to be easily purchased. The city of St. John contains 32,000 inhabitants, and has a considerable trade. I was present at the opening of the Provincial Exhibition. The display of agricultural produce was very good indeed. It is situated on the Bay of Fundy, where the tide rises some thirty feet. The fish around the coast of the province consists of salmon, herring, gasparouche, shad, haddock, pollock, lobster, and halibut, sturgeon abound in the rivers. This province is bounded on the north by the province of Quebec and the Bay of Chaleur; on the east by the Gulf of St. Lawrence; on the west by the State of Maine; and on the south by the Bay of Fundy.

Having crossed from St. John by steamer to Annapolis, I entered another very fine Province, that of Nova Scotia. This province is bounded on the north by the Bay of Fundy and Chignecto, and is separated from Prince Edward Island by Northumberland Strait. The Gut of Canso

separates it from Cape Breton; otherwise, except at Amherst, where it is connected with New Brunswick by an isthmus about twelve miles long, it is altogether surrounded by the Atlantic Ocean. The length of this province is 260; its greatest breadth, 100; its area, 16,500 square miles. Cape Breton, attached to it, is 110 miles long by 90 broad. The population in 1871 was 387,000. The Catholics and Presbyterians are about equally divided, being about 103,000 each. Other denominations number about 181,000. There are fourteen counties in Nova Scotia and four in Cape Breton. Nova Scotia is an undulating country, consisting of hills, plains, and mountain ranges. The ridges run along the entire country, throwing streams to the north and south. These ridges terminate in bold upright headlands on the coast, and sometimes graduate into verdant plains. Between the North Mountain, along the Bay of Fundy, from Digby to Cape Blomidon, and the South Mountain in Annapolis and King's Counties, is a beautiful valley, which was part of the subject of my visit.

The soil throughout the province is varied, the inferior being found along the southern shores. The best soil is on the northern. The counties along the Bay of Fundy contain much dyke land—that is, land that was enclosed from the rivers by the early French colonists, by means of earthen dykes. It is exceedingly fertile, having, without manure, produced splendid hay crops for the last 150 years.

The winter sets in about the 1st of December, when snow falls from one to two feet, deep. January, the frost is pretty severe. February, 20° to 24° below zero. Thermometer never freezes. March is wintry, blustery weather, rain and snow.

Snow leaves about the last week of April and the first week of May. Then ploughing and sowing are in full operation, and continued, to the 1st of June. In the last week of July and first week of August, hay is cut. Harvest commences about the 20th August, and all through September. Spring wheat is cut in September.

The steamer, on her way to Annapolis, touched, at Digby, a considerable town. I was impressed during the sail up the Annapolis Gut by the appearance of well-to-do farms and rich dyke meadow land, comfortable houses, with orchards. I was not prepared for what was still to be seen. I went by rail from Annapolis to Bridgetown. I visited the Paradise Cheese Factory. They there can manufacture 15 cheeses per day of from 20 lb. to 80 lb. weight. The factory is a joint-stock company composed of farmers in the district. They send in their milk, and the proceeds, after deducting expenses, are divided amongst the partners. They manufacture sweet-milk cheese from 10th May to 10th October, Skim-milk cheese runs a fortnight. This season they made 1,250 cheeses, the weight being 27 tons. 300 cows are about the number that supply milk. The profits allow about 1 cent, per lb. of Milk. Two hands are employed in the factory, and five teams. The cheese is sold in the local markets of St. John, Halifax, and Yarmouth. They manufacture the cheese on the principle invented by Jesse Williams, the first cheese-maker in the United States. The average price for cheese is 12 cents. 35 head of swine are fed with the whey. The following are the factories in operation in Nova Scotia: 4 in Pictou County, 1 in Cape Breton, 1 in Hants, 2 in Colchester, 5 in King's County, 8 in Annapolis, and 1 in Yarmouth.

Mr. Betton, Paradise, says that wheat averages 23 bushels; oats, 25

bushels; barley, 23 bushels per acre. Potatoes are not good with him; they average 200 bushels per acre. Mangel wurzel, 500 bushels. Hay, 2 tons per acre. The best land in the county for hay is the dyke-land. His farm is 101 acres. He goes in for raising oxen. Raises three calves a year. Sells a yoke each year; price, 8 dollars per 100 lb. The pair weigh together 1,400 lb. dead weight; live weight would be 2,800 lb. Farm labourers get 12 dollars (£3) per month for ordinary work. One dollar per day for haying, and $\frac{3}{4}$ of a dollar for harvesting. Servant girls, 4 dollars per month. Many of the girls go to the States. The county of Annapolis will produce 150,000 barrels of apples, at 1 dollar 25 cents per barrel; and judging from the number of voters in the county, and that the half of them are farmers who, as a rule, sell two oxen each annually, there may be 3,000 oxen exported yearly for the English and Scotch markets from Annapolis county alone.

I drove into the country, up one road and down another, and was charmed with the farms and general appearance of prosperity. Notwithstanding all this, I was informed not only in Nova Scotia, but also in New Brunswick, and in the Quebec and Ontario Provinces, that many farms are heavily mortgaged, which means that heavy interest is payable for money advanced to their owners, and that their owners are only too anxious to sell off their farms so as to be able to clear their debts; so that there is a gnawing worm at the root of every tree, however promising it may be externally. The farms consist of mountain land, upland and interval land. Bridgetown, fourteen miles from Annapolis, is at the head of the navigation of the river, and is the largest town in Annapolis County. I saw a vessel here of from 150 to 200 tons burden, that would draw probably from eight to ten feet when loaded.

The cry everywhere I went in Nova Scotia was. 'We want good agriculturists. Bridgetown would afford employment to many artisans: a grist-mill is much wanted, so is a woollen-mill, and a steam saw-mill.

Having left Bridgetown and its beautiful fruits, I proceeded to Kentville, which is environed by hills. I here experienced the greatest hospitality from a fellow-countryman, Mr. Innes, manager of the Annapolis and Windsor Railway, not only in driving me over the country, but in explaining the nature of the district, and afterwards entertaining and lodging me.

We call on Mr. Leander Rand, township of Canning, near Kentville, whose wheat averages 22 bushels per acre; oats, 45 to 50 bushels; Indian corn, 40 bushels shelled; potatoes, 225 bushels. Manure is spread broadcast. Hay gives 2½ tons per acre fully; turnips, 1,000 bushels per acre. There is any amount of sugar maple in the district, but it is not turned to account. Mr. Rand has fourteen or fifteen acres in a solid block — 'big fellows, as big as a barrel.' He has thirty-three head of cattle, and his farm is one of 200 acres. The grazing is at the ratio of six cows to eight acres. Labour is 50 cents per day for a lad; for an ordinary workman, 1 dollar per day; and 120 dollars per annum for a man in the house; for a married man, 140 dollars with a house, and keep himself; maid-servant, 4 dollars per month. Average number of trees in an orchard of two acres is 110. He has got 226 barrels off forty-two trees, and sold 100 barrels at 2 dollars. Thrashing is done by steam thrasher; give overy twelfth bushel in return. He usually ploughs seven inches deep; most people only plough five inches. Butter is from 18 to 20 cts; cheese, 12 cts.

A milk cow should produce in milk 30 dollars, or £6; one cow he had produced 360½ lb. of milk in a week, but the average of his other cows was 180½ lb. Working horses about fifteen hands high are worth 100 dollars; working oxen, 80 to 100 dollars per pair. Clydesdale horses are too heavy for that district, and trotting horses too light. The cattle they want are polled Angus; and the horses, the Norman breed.

Mr. Innes estimated the fruit-production of Annapolis, King's, and Hants Counties at 250,000 barrels of apples.

We call on Mr. J. W. Margieson. His wheat averages 27 bushels per acre; oats, 30; barley, none; average of potatoes, 200 bushels. He has two farms—one of 210 acres, and one of 212 acres. The latter has 40 acres of salt marsh, which is the very best for fattening cattle. Dyke-land is worth in the market £32 an acre, or 160 dollars; upland is worth 16 dollars an acre. Average price of hay is 10 dollars per ton, but he is selling it at 16 dollars per ton; upland hay is a dollar cheaper, viz., 9 dollars on an average. Marsh-mud is splendid for manure. When ordinary grass-land is manured by it, it produces easily 2 tons per acre, but on dyke-land 3 tons. Mr. Margieson states that the present time is the worst that they ever had.

Mr. Innes continued his drive with me through Cornwallis, a beautiful country, and we then returned to Kentville.

Next day I proceeded to Windsor, and the superintendent of the railway plant being on the train, he gave me valuable information, not only as to the construction of the dykes and sluices, but also information as to other industries. We passed Cornwallis River, King's Port, Fort William, Avon River, and Grand Pré, the scene of Longfellow's poem of 'Evangeline.'

Grand Pré (or the great field) consists of about 3,000 acres of dyke-land and is held in common by a number of proprietors. After the crops have been cut, cattle are turned on to the after feed, or pasturage; and a proportionate number of cattle, according to the extent of their other lands, is decided upon by the proprietors for each farmer.

We now saw Hansport, on the other side of the Avon, and Armstrong's ship-building yard. The river here is three-quarters of a mile broad. At Avon Fort, on our own side, a ship of 1,200 tons burden was on the stocks.

We passed a brook, the dividing line between Hants and King's Counties. The former is mostly kept up by ship-building. At Hantsport a 600-ton vessel was on the stocks; sail-lofts and other nautical industries were spread about. The village depends on shipping. We passed Newport Landing, mouth of St. Croix River, contiguous to Windsor, which was a mile distant.

We now passed an iron bridge, 1,200 feet long, erected at a cost of £40,000, and arrived at Windsor, a thriving town of 2,000 inhabitants. This neighbourhood is rich in limestone and gypsum, much of which is exported.

By the kindness of Dr. Black, I was again driven over the country. We called on Mr. Maxner, who has a farm of 125 acres. His crop of wheat this year was exceptionally poor; it would only average 17 bushels per acre. His oats would average, 35 bushels per acre; barley, only sowed half a bushel; potatoes, 200 bushels. He has 25 head of cattle; generally fattens two every year. He has 45 acres of dyke-land, and 17 or 18 under-

crop. He keeps 15 cows. He sells milk at Windsor, 2½ cents a lb., and gets at factory 1 cent; butter averages 20 cents. Dr. Black said that retail price of lamb was 10 cents; roast beef, 12½ cents; steak, 15 cents, at Windsor. The milch-cows are a mixture of Hereford, Durham, and Devons. A good cow would cost from 34 to 40 dollars, and would average ten quarts per day for six months. Mr. Maxner corroborated all about dyke and upland.

Dr. Black drove me to the place where for many years the late Judge Haliburton, who wrote 'Sam Slick,' resided. Not far from his house a large gypsum quarry is being worked. I was very kindly entertained by Dr. Black, and afterwards having accidentally met Dr. Fraser, Windsor, he also was exceedingly kind to me. We witnessed the tidal wave called the 'bore' coming up the river. All creatures leave the way when it approaches. The cattle know the sound of its roaring.

From Windsor I returned to Horton Landing, Grand Pré, and called on Mr. Paterson, who also received me very kindly. He likewise drove me over the country. He owns 100 acres, 30 being upland, 70 dyke-land. His wheat, he stated, averages 20 bushels per acre; oats, 40; barley, none, but 40 used to be the average. Potatoes, he had 8 acres, which produced 2,000 bushels, which he was shipping; this gives 250 bushels per acre.

He stated that he never succeeded with turnips on his land; they worked too much to leaf and stem with him. They, however, do very well with a neighbour who, on the other hand, could not raise mangels, whilst on his land he can raise 1,000 bushels per acre without trouble. Of sugar beet, he stated that he raised 200 bushels last year; but sugar beet was more difficult to cultivate than either mangels or turnips. Indian corn did fair—25 to 30 bushels per acre.

In that province they manure the ground for potatoes, spreading it on; also manure the turnip ground, and sow it in drills. He kept 10 cows last summer, and raised the calves. This summer only kept 8 cows, filled up the vacancy with oxen. He is under the impression that it is more profitable to feed than to breed. He says the dyke-land will produce 2 tons hay on an average per acre. The upland, by under-draining and manuring, will produce 3 and even sometimes 4 tons per acre, but the dyke-land will take care of itself. It has been cropped continuously for 100 years. A 14½-hand horse, about 1,000 lb., would be worth \$30 dollars.

Next day I called upon various parties in Halifax; amongst others, I had the pleasure of an interview with Mr. Gossip, the president of the Geological Society of Nova Scotia. Having a day to spare, I visited the east side of the peninsula, for the purpose of passing through a portion of the mining country. On the train, I met the Hon. Mr. Holmes, and also the Hon. Mr. Pope, Minister of Marine, Ottawa. I received much information from the former as to the geology of Nova Scotia, and from the latter an invitation to visit Prince Edward Island. I was very sorry that I could not do so, as I have reason to know that the Island would have richly repaid the visit. In common with Nova Scotia that Island has a mud in the beds of rivers, which is a great fertiliser. It consists of oyster shells, animal remains, and debris of soil washed down by the rivers. This, when applied to the land, enriches it so much that it cannot be surpassed in the Dominion.

At the Montreal Exhibition, Prince Edward Island took the first prize for white oats, the first for black oats, the second for spring wheat, and the second for barley. It also carried the first prize for draught horses, and the second prize for shorthorns.

I come now to the peculiar excellencies of the peninsula of Nova Scotia, and that is, its vast resources in minerals. The minerals generally belong to the Government, but they are leased to parties desirous of entering into mining operations and every facility is afforded to prospectors. Particulars can be had on application. The coal of Nova Scotia is bituminous, and consist of coking, cherry, and cannel coal. A vast coal-field extending seaward under the Atlantic, occurs in Cape Breton; the Sydney coal-field is famous, and has been found valuable for steam coal and for gas; the Inverness coal-field is likewise well-known, and, from analysis made, would command a ready market if suitable facilities for shipping it were provided; the Pictou coal-field, south of New Glasgow which place I visited, has an area of thirty-five miles, in which the beds are uncommonly large. It is very favourably spoken of by the manager of the Richelieu and Ontario Steam Navigation Company, who considers it equal to Scotch. It is used on the Intercolonial Railway. The Allan Line steamers also use it. The Cumberland coal is much used in St. Johns, New Brunswick. In one mine the vein is eight feet thick. Springhill is extensively worked. Between Cape Breton and Nova Scotia there are coal-beds which cover an area of 6*5 square miles.

In addition to coal, there is gold, which is to be found along the Atlantic coast from Canoe to Yarmouth. It occurs, as is stated in the lodes, 'in spots of every shape and size, up to 60-ounce nuggets.' In this province the deposits are found at Waverley fifty feet deep. The following are the districts in which gold is known to exist: Caribou, Moose River, Fifteen-mile Stream, Gay's River, Laurencetown, Montagu, Waverley, Oldham, Sherbrooke, Isaac's Harbour, Wine Harbour, Tangier, &c., &c. For full information, see work by Mr. Edwin Gilpin, Jun., A. M., F. G. S., on 'The Mines and Mineral Lands of Nova Scotia.' Amongst the information in that excellent work will be seen a return per man from the various districts, the highest being the Montagu, 6 dollars and 13 cents per day; next to it Oldham, 5 dollars and 41 cents per day.

There is also iron to be found in the province of great value; Londonderry is a well-known mining locality, and the iron here is believed to be superior to the best English iron. Iron ores are also found at Pictou. Iron is found all the way from the Gut of Canoe to Yarmouth. Copper also is found as well as lead and silver; antimony, nickel and tinestone are known to be in the province, also arsenic sulphur, and maganese. It is believed that of the latter, a large deposit exists.

In this province also, gypsum, hard and soft, is found in great beds. Soft gypsum, as stated, is near the late Judge Haliburton's house at Windsor. It also occurs with lime when entering the railway station from the north. Soft gypsum is valuable as a mineral manure, and for plaster purposes, cornices, &c. The hard is not so much used, being more costly to work.

Besides the above, the paint-trade is greatly indebted to Nova Scotia. Ochres are found at the Londonderry iron mines, and in Antigonish and Pictou counties—modifications of red and yellow being produced by

other means. There are also salt springs and mineral waters, freestone, granite, flags, slates, clay, limestone, marble, and natural cements; fire-clay for bricks and tiles; grindstones, millstones; as well as amethysts, cairngorm stone, jasper, and opals, and heliotrope or blood-stone.

In conclusion, the Province of Manitoba appears to have a more fertile soil than any one of the older provinces. In productiveness it ranks first in respect of wheat, oats, and potatoes; but I found that cropping of wheat is reducing the land. Turnips and mangel wurzel do exceedingly well. The averages taken from the preceding notes are—wheat, 30½ bushels per acre; oats, 62½. Potatoes average 225 bushels per acre. As the province at present consumes all its wheat, the prices obtained are as good as those in Ontario; but, when wheat is exported they will be relatively lower. The country is suitable for cattle raising. Timothy hay and Hungarian grass produce good crops; red clover has been tried, but will not stand the winter. Fuel can be obtained along the banks of the rivers, and wood lots are assigned to settlers; but unless coal or other material is substituted, wood growing must be very extensively resorted to to supply settlers with fuel. The climate of Manitoba is healthy—the air dry, clear, and invigorating. Land can easily be protected from prairie fires, which are not unfrequent in September.

Next to Manitoba, the province of Ontario has the best cereal crops. Wheat in the district visited by me averaged 27 bushels per acre; oats, 48; barley, 55. Potatoes are not much grown, except for home consumption. Indian corn does very well. Fruits are excellent. The climate is good. There are many industries in the towns, principally connected with agriculture.

Next in order comes Sussex Valley, New Brunswick. Wheat produces on an average 26 bushels, and oats 48 bushels per acre. New Brunswick has a later spring and a later harvest, and a damper climate than Ontario. Potatoes, mangels, and turnips thrive well. Cattle feeding for the English market is being entered into. Hay land is good. The local market for most produce is St. Johns.

The Eastern Townships of Quebec produce wheat averaging 24 bushels per acre; oats, 37½; barley, 38½. The townships are good grazing lands, and cattle feeding is being gone into.

In Nova Scotia wheat averages 22 bushels per acre; oats, 25; barley, 28. It has exceedingly rich dyke marsh-lands, the river bearing down a mineral deposit, and the tides carrying up vegetable and animal particles which together form a mud that cannot be surpassed as manure for grass-lands. Nova Scotia consumes all its own cereal produce. Its winter is longer than Ontario, but vegetation is very rapid when the heat of the summer comes on. Cattle feeding for the English market is extensively gone into. It can vie with Ontario for its apples, pears, plums, and grapes. Its industries are fishing, mining, ship-building, lumbering, commerce, and manufacturing.

In all the older provinces, that is in Ontario, Eastern Townships of Quebec, Nova Scotia, and New Brunswick, there are many farms for sale. The houses in Sussex Valley, in New Brunswick, and in the Cornwallis, Windsor, and Annapolis districts of Nova Scotia, are very nicely got up, and in general are better than the run of Ontario houses, though in some townships and near towns these also are very good.

The price of land of course varies very much, according to its quality and the houses erected upon it; but with a good dwelling house on the farm and the requisite stable, barn, &c., a farm of 100 acres could be easily purchased at 40 dollars per acre, and sometimes at less. In Nova Scotia marsh land sells very high—about 160 dollars, or £32 per acre.

One can judge from the proceeding account which province he would select if he were disposed to emigrate. Manitoba is far distant. The lands next the railway at the Winnipeg end are all taken up, but could be bought high from their holders. Emigrants require to go back into the country to secure the free-grant lands, but the immediate extension of the Pacific Railway, which is now under contract, will speedily open up the vast area of prairie land between Manitoba and the Rocky Mountains, a distance of not less than 900 miles.

My idea is that Canadians are better fitted for prairie life than we are; and seeing that they are not very far distant from Manitoba, families could overcome, without nearly so much inconvenience or expense, the difficulties which distances throw in the way of British farmers. I met an old Canadian, Mr. Rutherford from Oxford Co., Ontario, who was all over the Province of Manitoba looking for land. He bought an improved farm west of Calt Mountain, Pembina Range, consisting of 320 acres, for 2,900 dollars, including 20 acres of wood with buildings. He reported that an excellent crop was on the ground. He preferred paying the above price to incurring the great expense and labour of erecting buildings and fences, and the inconvenience and expense that would otherwise be attached to his settling on unoccupied land. If Mr. Rutherford found this to be advisable in his case—and he was a man fit to judge—I think any person desirous of emigrating should consider well, whether, if he can afford it, it might not be desirable for him to give a higher price in the lower and maritime provinces for a ready-made farm, where he might have all the social comforts of life quite within his reach, than to proceed westward.

Many Canadian farmers are burdened with mortgages on their farms, and they are anxious to be relieved of these farms, and to start life afresh in Manitoba, where they can get their sons around them, and be afterwards, provided for. These men are accustomed to rough it, and know now to use their axes in erecting log-houses, etc., and they therefore are eminently qualified for life in Manitoba.

As to schools and churches, the Dominion is as highly favoured as we are ourselves. A school-tax is paid, but no fees.

Medical practitioners can everywhere be had in the lower provinces, and by-and-by will spread themselves over Manitoba.

I returned from Halifax by the Allan steam-ship *Hibernian*, Captain Archer. We had heavy weather, but had a good ship and a good commander; and although our passage was protracted, we passed a very pleasant time, arriving at Liverpool on the 26th October.

After the report had been read, a number of gentlemen sat down to dinner in the Argyle Arms Hotel, D. McGibbon, esq., presiding. The usual loyal toasts having been duly honoured.

Grovost Greenless said it had fallen upon him to propose the toast of

the evening. He did not know for what reason, but he supposed it was because he was a very old friend of his. All must admit that Mr. McLean had done his duty faithfully. When they considered that he had kept them for two hours and three-quarters listening to the account of his experiences in that country to which he had been sent, they would acknowledge that he was a man of no ordinary ability. In seeking a representative to send from the district the farmers could not have got a better man. He could fancy Mr. McLean going about everywhere with his note-book under his arm. He did not give them the ideas of one man only, but he compared various opinions with his own, and then arrived at the result, and he was certain that in every opinion he gave he was thoroughly honest. He asked them all to join in drinking long life and health to Mr. McLean.

The toast was drunk with enthusiasm.

Mr. McLean made a suitable reply, and, after other toasts, the company separated.

REPORT OF MR. R. H. B. P. ANDERSON,

Of Listowel, Co. Kerry, Ireland,

On Ontario, Manitoba, and the North-West.

Some months ago I was asked by a number of friends to go out to Canada and report on the country in general, and Manitoba in particular, as a field for emigration. Accordingly, I left Ireland in July, that I might reach Canada while the crops were still growing, believing that in this state they are as good a criterion as it is possible to obtain of the soil and climate of a country. I have now returned after a very pleasant and instructive trip, and have not only seen the crops growing but some of the grain cut; have witnessed many of the ordinary Canadian farm operations; have seen their cattle early enough to be able to judge what they must have been after the longest and severest winter Canada has experienced for years, and late enough to observe what a few months' feeding on the 'wild prairie' can do. I travelled for hundreds of miles over the open prairie during the hottest part of the Canadian summer, and having camped in the middle of the marshes can speak from personal experience of the inconvenience of the heat, and of those pests, the mosquitoes and black flies. I have taken some little trouble in investigating their school system, and have visited the farmers in Ontario and the settlers in the North-West; in fact, I have seen and done all that was possible in the limited time at my disposal and am happy to say that on the whole I was much pleased.

There is no doubt that Canada has its drawbacks, and many of them, as well as its advantages; but he must be blind indeed who cannot see a wondrous future before it—in fact, to quote a popular author, it is 'the future world, the Great Titan-baby, which will be teeming with new Athens and Londons, new Bacons and Shakespeares, Newtons and Goethes, when the old wornout island will be—What?'

Before applying myself to the main part of my subject, i.e., the agricultural and commercial capabilities of the country, I should endeavour as far as possible to remove from the minds of my readers a few unjust prejudices and erroneous ideas too commonly entertained by the people of these countries concerning the Canadian people, Canadian travelling, and the sea-voyage, as it is my belief that there are many persons kept at home in comparative want who might do well in Canada were they not deterred from trying their fortunes there by their notions on these subjects. About the sea-voyage I may say it is simply a pleasure-trip, its only fault being its shortness.

I crossed to Quebec in the *Sarmatian*, of the Allan Line, and returned in the *Sardinian* of the same Line, both magnificent vessels, on board

of which it is impossible to realise the 'dangers of the deep.' The extreme caution of the captains if the slightest fog appeared was almost irritating to our landsman's ignorance, but at the same time it made us feel perfectly safe in their hands. The passage out occupied but seven days and a half, we were only four and a half days out of sight of land. On the fifth we were sailing up the St. Lawrence—one must see the glories of this magnificent river to be able to realise it. The arrangements on board the vessels for the comfort of all passengers, whether saloon, intermediate, or steerage, are as complete as they could well be. With regard to that bugbear, sea-sickness, I can only say that he is quite as black as he is painted; but he seldom holds his victim long, and as he vanishes, as if in reparation for the mischief he has done, he leaves behind a feeling of health and elasticity which makes one almost thankful for his visit; besides, one suffers much more in the English Channel in an ordinary steamer than in crossing the Atlantic in an ocean boat.

As to the travelling in Canada, when I say that I have travelled over some 6000 or 7000 miles of the North-American Continent, more than 5000 of which have been either by rail or steamboat, it will be allowed that I am in a position to speak of its dangers and inconveniences. So far as one could see, there is an entire absence of that 'go-ahead' recklessness which we associate with it, and which was one of its characteristics in olden time. The railway tracks are extremely well laid, and seem perfectly safe; the speed does not exceed 35 miles per hour; the carriages are most comfortable and the Pullman cars either as day or sleeping compartments are perfect. I have made a journey of 90 hours there with less fatigue than I would one of 12 hours here. The carriages being close to one another, and connected at each end by a platform, a passenger can walk the full length of the train (often nearly a quarter of a mile long) and enjoy the fresh air outside the carriage door, avoiding the miserable feeling of confinement which one has in the carriages at home. The arrangements about luggage are such that it is almost impossible for it to go astray, or even give trouble to the owner. One is never in danger of being hungry when travelling, for if there be not a dining-car attached to the train, it is sure to stop at three stations during the day, where good meals for a moderate charge can be had.

But above all these, the extreme courtesy shown by all classes makes travelling delightful. The coarse and disgusting habits we attribute to the American are a thing of the past, or else they have good feeling enough to restrain themselves where indulging them would offend; and strange to say, in a country where all are smokers, a lady need not fear having her delicate senses hurt by the use of 'the noxious weed,' for no one ever thinks of smoking except in a carriage set apart for the purpose. When, in addition to all these advantages, there are intelligent and obliging officials, railway travelling need not be regarded with apprehension.

The river steamboats may well be called 'floating palaces,' and their management seems to be in safe hands. I was extremely surprised, though amused, to find that a rough day was quite enough to keep many of these boats from crossing Lake Ontario. On one occasion I was unfortunate enough to be one of fifty or sixty passengers on board the only boat that put out from Toronto for the day, and paid for the temerity of the captain by being more sea-sick than I ever have been before or since.

Of the good-nature of the Canadians I need hardly speak—it has become proverbial ; I will only say that I have never experienced greater kindness in my life than during my stay among them. Independent the Canadian certainly is, both in mind and manner—perhaps, to our old-country idea, disagreeably so ; but his independence falls far short of that self-assertion usually attributed to him. It is rather the independence of men ‘too full of self-respect to be either servile or uncourteous.’

I may say, without fear of contradiction, that there is not a more law-abiding or loyal people in the world than the Canadian ; nor any country where a man, having acquired property, will have his title thereto more respected than in Canada.

Energy, perseverance, and pluck no will deny that they possess to an extraordinary degree who sees their beautiful cities and remembers that comparatively a few years ago the ground on which they stand was clothed with primeval forests, the home of the Indian and the wolf.

The first land I touched in Canada was at Quebec. One of the first objects that attracts attention before reaching Quebec (some nine miles from the city), are the Montmorency Falls, looking like a streak of silver down the side of the brown cliff. Quebec is beautifully situated on a hill commanding magnificent views of the river both above and below the city ; but excepting these views, and the historical associations connected with it, the place is uninteresting. There is a large lumber-trade done, and lately a new wharf has been built, also elevators, in the hope of securing some of the corn trade. I doubt the expectation being realised, for it seems to me that Montreal is the natural (present) port for the West. I say present, for, should the Hudson's Bay route be opened—and I believe that is now a certainty—the trade of Montreal will receive a severe blow, for much of the grain coming to Europe from not only the North-West but the United-States, will be shipped *via* Port Nelson.

At Point Levi, directly opposite to, but divided from Quebec by the river, I saw some magnificent cattle and sheep taken off a ship just arrived from England. They comprised shorthorn and polled Angus cattle, and Cotswold and South Down sheep. Our Canadian, cousins, alive to everything by which the material prosperity of their country can be advanced, have seen the benefit to be derived from a good strain of stock, and spare neither trouble nor expense to obtain it. I am informed that the land in the southern parts of the province (Eastern Townships) is good.

Going into Montreal, one passes through a splendid tubular bridge—the Victoria—some two miles long, crossing the St. Lawrence, and arrives at an untidy, wretched station—one quite unworthy of Montreal, which is, as regards size and importance at least, the chief city of Canada. Montreal is beautifully situated on an island formed by the rivers St. Lawrence and Ottawa, at the foot of Mount Royal—hence its name. The mount has lately been turned into a public park, which will undoubtedly be one of the finest in the world. The views from it are glorious. Montreal is a city of which the people are justly proud, and is the chief outlet of Canadian commerce.

Here I had my first experience of Canadian hotels : in the arrangement and management of which, as in most other things, they are ahead of us. Nothing is left undone to promote the comfort and convenience of guests.

Their charges are moderate, but their system of making them is very unlike ours; one charge is made of so much per day, which includes everything—that is to say, bed, attendance, and four meals. At the very best hotels in Canada the charges range from 10s. to 12s. per day; and for this sum you can live in a style, and amid comforts you would look for in vain in Ireland. Neither has one to run the gauntlet between rows of waiters, 'Boots,' etc., expecting to be 'tipped' on leaving a Canadian hotel. The island of Montreal, which is about thirty miles long by nine wide, contains good land, and the farmers in the neighbourhood are well off.

The next city I visited was Ottawa, the Canadian capital. Here I had the pleasure of meeting Mr. Lowe, the secretary of the Agricultural Department, who kindly gave me much useful information, and put me in the way of seeing the country to advantage.

About twenty-five miles from Ottawa there is some prime land, and I was informed on the best authority that the whole valley of the Ottawa, which is composed of a light sandy loam, is admirably suited for the cultivation of the vine, and is expected to be a wine-producing region in the immediate future; indeed, I saw vineyards myself of several acres in extent, the vines looking healthy, and giving evident proof that they can be grown to advantage. They have a great many varieties of hardy vines, which, with very little care, can be kept through the severest winter without receiving injury. France and Germany may yet find a rival in Canada for their light wines. Ottawa itself is nicely situated on the river Ottawa, and contains the Houses of Parliament, which are really beautiful structures. From them one has a splendid view of the river. The ordinary buildings in the town are good, but the streets are anything but well kept, and there seems to be very little trade in the place except in lumber. I visited the Chaudière Falls, close to the town. They are very fine. Here I was greatly struck with the utilitarian spirit of the Canadians, the waters being turned from their natural course over the falls to work mills for cutting timber. I went into one of the lumber mills close by worked solely by the river, and was almost deafened by the eternal 'whirr' of the saws. I was told that in this mill, during the three months it works, they cut upwards of 10,000,000 feet of lumber. Both here and at Montreal I saw the true Canadian horse—small, slight, wiry, and full of pluck—not adapted, apparently, for heavy work, yet astonishing the beholder by what it can do.

ONTARIO.

The next city I shall mention is Toronto, the capital of Ontario, the richest province of Canada. The city is situated on the shore of Lake Ontario, and is beautifully laid out; many of the streets are lined with trees, and the lovely avenues remind one of a park. Here I received much kindness from Mr. Donaldson, the Government agent, who piloted me about and pointed out the various objects of interest—the university, model-schools, park, &c., &c., and we had a sail on the lake. Mr. Donaldson is one of the oldest inhabitants of the place, and remembers when, about forty-two years ago, there were but eight houses in it. An old-country visitor looking round him, finds it tax his imagination to believe this.

Toronto is the fountain-head of the Canadian educational system, which, so far as I can judge, seems perfect. Ist, There is the Public School, in which every child is entitled to receive a free education; next comes the High School, the charge for which is about £1 a quarter for each pupil. There is a Public School and High School in each district: the High School course is a very comprehensive one. The master's tenure of office in these schools depends on his success as a teacher, and as there is a wonderful amount of rivalry between them the pupils are sure of having every attention; indeed a gentleman who was for many years a most successful master, told me that the post is one of the most arduous that can well be imagined. After these schools comes the Collegiate Institute, and, lastly, the University itself, the fees for which amount to about £10 per annum. The pupils in each school are examined twice a year by public examiners, and those who show sufficient proficiency are raised to the next school above that in which they pass. I think the whole system, both as regards cheapness and thoroughness, will favourably compare with any in this country.

The province of Ontario is a magnificent farming country: it was here I first began to learn what a dangerous competitor in agricultural produce Great Britain and Ireland have in Canada. With a soil equal to any in the world, and practically unlimited in extent; the very best strains of cattle and sheep that can be purchased for money increasing daily in number; labour-saving machinery of the very finest description, and farms extensive enough to warrant its use; cheap food; a country which can, and will in time, supply every want of its people; and above all, a people who seem to have erased the word 'impossible' from their vocabulary, it does not require the gift of prophecy to say how the competition will end. One thing is absolutely certain—the small farmers of Ireland, even supposing they had no rent to pay, must succumb. The soil of Ontario of course varies, but as a rule, is a good deal run down for want of proper farming; for taken as a whole, the Ontario farmers are not models I should advise my countrymen to copy. Among other faults, they entirely neglect the rotation of crops; and many seem to think manure unnecessary. However, they are rapidly improving in their methods, and I have met many excellent farmers who do justice to the soil they cultivate, and are, as a consequence, reaping a rich reward.

The climate of Ontario is healthy, although severe. The heat in summer is intense; the cold in winter, though not as great as that in the North-West, is, I am told, more trying, owing to the comparatively greater degree of dampness that exists. I am inclined to believe that the indiscriminate cutting away of the forest has injured the climate, and renders it more uncertain than it would otherwise be. The dry summers that sometimes occur are, I think, attributable to this cause. But that it is healthy in the extreme is beyond question: both the people and the cattle being living proofs of it. When one sees the purest shorthorn cattle bearing the Canadian winter with shelter and food much inferior to that considered necessary for them in this country, yet in as good a condition as can be desired, one must conclude that the climate is a good one. The heavy yield of all descriptions of crop proves that it is one suited for the agriculturist. Melons, peaches, grapes, &c., ripening in the open air tell what the summer can do.

CATTLE, SHEEP, HORSES, PIGS, &c.

I did not visit any of the extensive herds of pure-bred cattle that Canada can boast of, being satisfied that they existed. I may just say that having first imported their stock from this side, they are now able to sell us animals for enormous figures. One that I have seen myself was bought as a nine-month-old calf by Mr. Talbot Crosby, from Mr. Cochrane, of Compton (E. Townships), for, if I mistake not, £850.

I thought it more to my purpose to see what class of cattle the ordinary farmer was able to rear, and great was my astonishment to find on farms of 150 or 200 acres of land (the ordinary size of a Canadian farm), short-horns of the very best families, which they cross with the native cow, producing very good animals indeed, either for the butcher or the dairy; and sheep that would raise envy in the breasts of some of our flock-masters in this country; the South Downs surprised me much, as I was inclined to think the cold climate would not suit them, and expected they would be small and puny, but such was not the case. Up to the present, the Cotswold seems to be most in favour. The pigs, too, are excellent. I saw some Suffolk and Berkshire pigs in Ontario that would do credit to any breeder in this country. I may mention, in passing, having seen a beautiful shorthorn cow, 'Isabella,' the property of a Mr. Russell, of Markham; she was a perfect animal of her kind.

I shall here say a few words on the prospect of the cattle trade with this country. I believe it to be only in its infancy, and that five years hence Canada will be able to send us one hundred pounds of beef for every one she sends at present, and of almost, if not quite, as good a quality as our home-fed beef. My reasons for this opinion are as follows:—Until a very few years ago, the Canadians had none but native cattle which, when crossed with a good breed, produce very fair animals, but are themselves inferior except for the pail; and as they only required these for dairy purposes or work-oxen, the calves, as a rule, were destroyed as soon as dropped.

Now, not only are there several extensive herds of pure-bred cattle in the country, but it is no uncommon thing to find ordinary farmers with a couple of pure-bred bulls and good-sized herds of excellent 'grades' (crosses between the native cow and shorthorn or polled Angus bulls, this last-named breed being admirably suited to the country). The calves are all reared, and as dairy farming has not paid so well the last few years, and the cattle trade with England has been tried and is found remunerative, many men have turned exclusively to rearing and feeding cattle for the English market. At present the Canadians are, and will be for some time to come, behind us as feeders; but they are fast finding out the increased value which oil-cakes, and other contracted foods give, not only to their beef, but to the manure. Up to the present, by far the larger number of Canadian cattle sent to us are 'distillery fed.' A man makes a contract with a distillery company for the 'swill;' and this, with hay, is all he gives his beasts. They thrive well and make good beef. When a farmer ties up his cattle he considers them worth about two dollars per cwt. (of 100 lb.) He can buy them for this sum, and is fully satisfied if he gets five dollars per cwt. for them when finished. It appears to me that a little more time and a little more knowledge will make the cattle

trade a great success—for Canada. But what about these countries? I may here remark, that our railway companies might do worse than take a lesson from their Canadian brethren on the treatment of cattle while in their care. There is quite as great a difference between the cattle-waggons in the two countries as between the passenger-cars. In Canada, cattle are taken on at once to their destination, and not kept for hours here or there on the road, as in this country.

I saw some very good Clydesdale sires in Canada; crossed with the Canadian mare they make a good animal, but heavy horses are not required, indeed, would be undesirable there—at least for the farm. The Canadian horse is quite strong enough for the ordinary work, and is a marvel of activity and endurance. I heard some complaints in Manitoba of the mortality among horses imported there, but after sitting behind the same pair for six days, doing forty miles per day on an average, and seeing the treatment they often of necessity undergo in that country, I was only astonished that the death-rate was so low; horses in this country would not last two days if they received similar treatment. I have run short of oats, and as a consequence my poor cattle had to go for twenty-four hours with nothing to eat but soft prairie grass, as I was not always able to get even hay. Their gentleness, too, is wonderful. I had a striking example of this, having had to drive a pair of horses over sixty miles with their shoulders literally cut away: doing so nearly sickened me, but there was no help for it, and yet the noble brutes never even winced. I have got into difficulties and out of them again, without hurt to either horse or trap, that in this country would have meant the utter destruction of both. They seem to take every thing in a most matter-of-fact manner; if down they will lie quiet until freed, and yet are full of pluck.

CROPS AND FRUIT.

Considering the cultivation they get, crops of all kinds in Ontario were very good. I shall give what I was told was the average yield of some of the principal crops, but I would say that it is absolutely absurd to talk of the average yield of any crop either in Ontario or the North West, one man being able to raise thirty bushels of wheat and fifty of barley to the acre, while his neighbour under similar conditions, but with less skill, can only raise sixteen of the one and thirty-five of the other. 'Average yields,' under these circumstances, are no criterion of what the soil can do; it is my belief that most of the arable land in Canada, if properly worked, will produce crops as heavy as any land in the world—of course allowing for climatic influences. Here are the yields as I got them: Spring wheat, 14 to 19 bushels per acre; fall ditto, 24; barley about 40; oats about 45; peas, 25 to 30; potatoes, 300 to 400; turnips, 600 to 800; mangels about 1000.

It must be remembered that these crops are raised on land, for the most part, indifferently farmed; crop after crop of wheat being taken from it for years in succession with the least possible quantity of manure—indeed, in some cases none. The Canadians are utterly innocent of the use of artificial manures. But contact with old-country farmers, and the strong common-sense of the Canadian, will soon improve his farming; and I think I am safe in saying that, with improved agriculture, an increased yield of at least one-third would result. I saw a field of carrots,

mangels, and turnips grown by a Mr. Rennie of Scarborough on virgin soil; they were better than any I have ever seen in this country. Mr. Rennie, who is an exceedingly intelligent man, showed me, with honest pride, some of his ploughed land. No doubt the friable soil he had to deal with did not present the difficulties to the plough that our heavier and more stony land does; but if Mr. Rennie throws down the gauntlet to the ploughmen of this country, I would advise none but the very best to take it up.

Timothy is the 'tame' grass, as they call it, usually sown for pasture or hay; they also use 'orchard grass,' answering to our cock's-foot, which is a good pasture grass. Timothy yields from two to three tons per acre at one cutting; and when the season admits of it there is usually a second cutting of about equal weight. In Canada the acre is a statute acre. Some of the farmers have tried 'lucerno' as a soiling crop with great success; on fair land it may be cut three times in the year, and yields from two to three tons each cutting. Clovers do well; but the best crop is maize, which is cut when about ten inches high, and gives a wonderful return. They have tried Italian rye-grass, but it has been a complete failure.

Taken altogether, Canada is not such a fruit country as I had imagined. In Quebec little or none is grown; the same may be said of Manitoba and the North-West. Ontario, however, is exceptionally adapted for fruit-culture. Apples grow to perfection all through the province, and no homestead is complete without its orchard of from five to ten acres. It struck me that most of the farmers make a mistake in planting too many varieties as they seldom have enough of any one kind for exportation. The southern part of the province is a perfect fruit-garden, producing grapes, peaches, &c., in great abundance, and of very good quality, though not equal to our hot-house grapes and peaches. If the members of the Fruit Growers Association are any judges of the suitability of the climate, &c., (and we must suppose they are), the more tender kinds of fruit are not grown at all to the extent they might be. A member told me that owing to the elevation of the country about Guelph and the nature of the soil, it might be taken for granted that any fruit which could be raised in that district would do well in any part of the province. At Guelph I saw, in the garden of the Agricultural School, about twenty varieties of grapes growing in the open air apparently to perfection. I had also the pleasure of walking through Mr. Stephenson's extensive orchards, in which I saw a variety of fruits of wonderful excellence.

DISEASES OF CROPS AND ANIMALS.

Both cattle and crops are wonderfully free from disease: in fact, neither horned cattle, sheep, nor horses seem to be affected with the diseases to which they are usually liable in these countries. Wheat suffers occasionally both from smut and rust, but to no great extent, and the former is preventible. A dry summer generally leaves the turnips to the mercy of the fly. The pea is sometimes a good deal damaged by the ravages of a little insect. The potato-bug, although known in Canada, is no longer regarded with the feeling of dismay it excited at first. A little Paris green, about 1 lb. to the acre, generally makes short work of this pest. It is a curious fact that it seldom attacks potatoes planted in new land.

SIZE OF FARMS.

The ordinary Ontario farm is from 100 to 300 acres; the capital considered necessary for proper working is from £2 10s. to £3 an acre. The houses of the better class farmers are comfortable brick structures of the Swiss villa style, and are many degrees more elegant and comfortable than the houses of better-off men at home. The same cannot always be said of their out-offices, however, though these are said to have been much improved within the last few years. Every homestead has a large cellar in which to store roots. The farms are generally divided into good-sized fields by wooden fences; one rarely comes across a ditch or wall, but I have seen a hedge of the Osage orange, which makes a capital fence, the shrub being of a prickly nature. The snake fence is a useful one, easily made, but is untidy-looking; it is gradually disappearing. Owing to the dry climate, fence rails last for many years. Lately a barbed fencing wire has been introduced. It is an effective but a dangerous fence, and one, I hope, that will never be introduced here, or else good-bye to hunting. If an animal rubs against it, it is sure to be torn by the barbs; I ~~see~~ saw two or three horses terribly injured by it. Each farm has, as a rule, a good water supply, for though there are not many running streams, there is any quantity of excellent water to be had by sinking for it, and there are numbers of good-sized rivers. There is usually sufficient timber on the farm for fuel and fencing purposes, and young plantations are being made on many of them. Numbers of these farms are now in the market, the price, which includes all improvements, varying from £20 an acre round Toronto to £8 in the more distant parts of the province. An excellent farm can be had, with well-built brick dwelling-house, out-offices, &c., in a good district, for about £12 an acre. There are three causes at work which place these farms in the market: 1st. Many farmers have so run down naturally good land that they find it no longer profitable to farm it in the old way, and are either ignorant of how to bring it into heart again, or have not capital enough to enable them to do so, and must therefore sell. 2nd. Many find the 200 acre farm too small to keep a large family together. The sons, of course, wish to be settled in farms of their own, and Manitoba or the North West is the place they naturally turn to, and the capital realised by the sale of their 200 acres in Ontario is ample to start the largest family most advantageously in this new country. 3rd. Many farmers having made money and liking town life, prefer to sell their farms and go into business.

Let it be remembered that the capital the original settlers started with to clear away the mighty forests was the strength of their muscular arms.

WAGES AND TAXES.

Wages are high, good men receiving from £35 a year with board in Ontario; women's servant from £20 to £25. Taxes are a mere bagatelle, amounting to about 1s. per acre, school-rate included.

I was agreeably surprised to find that drunkenness is not common in Canada ; indeed, I was struck by the absence of spirituous liquors at the dinner-table in the hotels, and was amused when told by a waiter that any doubt about the nationality of a guest vanishes the moment he orders wine or beer, that being a sure sign of his hailing from the Old Country.

The rates of interest charged for money in Canada are very high ; it is quite easy to get from 8 to 10 per cent. with the very best security.

ROADS.

The roads are not so good as in England. Road-rates are paid by labour, and, judging by the work done, the system is a bad one.

FREE LAND.

There is still some free-grant land in Ontario, in the Muskoka district, principally bush. The land, I believe, is good, but I did not visit it.

AGRICULTURAL COLLEGE.

I cannot conclude my remarks on Ontario without mentioning the Agricultural College at Guelph. Guelph itself is a fair-sized town in the county of Wellington, in the centre of a well-cultivated district. The land is pretty good, but not so rich as some other portions of the province. There are several extensive breeders of both shorthorns and Herefords in the neighbourhood ; indeed, all the cattle in the district were particularly fine. The college is about a mile from the town, and is supported by the Province of Ontario. The farm connected with it contains about 500 acres. I inspected the system of instruction, which is very complete, including not only ordinary agriculture and stock raising, but a practical knowledge of chemistry and veterinary science, two very valuable branches to the farmer, and very little known. The ordinary education of the student is not neglected, for I see an English and mathematical course laid down, which, if taken advantage of, will give the future farmer something more than his bullocks to think and talk of. Nor is horticulture forgotten, and I saw for myself that the student had, in the extensive gardens connected with the college, ample opportunity of making himself acquainted with that art which will enable him hereafter to beautify his homestead and supply his table with vegetable luxuries.

Among the live-stock, six breeds of cattle are represented, *i. e.*, Shorthorns, Herefords, Devons, Aberdeen polls, Galloways, and Ayrshires. Of sheep they have Cotswolds, Leicesters, South Downs, and Oxford Downs. There are also some very good Berkshire pigs. The fields, which, as nearly as possible, contain 20 acres each, are fenced with straight board fences, and are extremely clean.

Turn where you will, evidence of careful management and sound judgment meet you ; but one would expect nothing else after having conversed with Professor Brown, who has the practical working of the farm. Professor Brown is making some experience in cattle feeding and breeding and with various crops, which I am sure will result in much good. From Mr. Mills, the able president, I received great kindness. Not only did he, in conjunction with Professor Brown, show me through the various departments of the college, &c., but afterwards drove me to several interesting places in the neighbourhood.

MANITOBA.

On my way to Winnipeg I stopped a day at Chicago—a wonderful city, but one which, all the same, I should prefer to live out of. It bears about as much mark of the fearful fire which left it a heap of ashes a few years since, as London does of the 'Great Fire'; and its magnificent stone buildings preclude the possibility of a repetition of such a disaster. I visited the stock-yards, and found half the cattle and pig pens empty. I was informed it was a very small market. There were about 50,000 pigs and some 10,000 head of cattle. I went through one of the large slaughtering-houses (Fowler's), and saw the whole process of bacon-curing. It was marvellous, but very disgusting. They kill, on an average, 8000 pigs a day in this establishment. The corn-elevators in Chicago are worth seeing; I was surprised and delighted at the rapidity with which they either load or unload a corn vessel. Some of them hold as much as 500,000 bushels, and one, I believe, is capable of containing 1,000,000.

I stopped for a few hours at Minneapolis, celebrated for its wonderful mills. I went through one of them—the largest, they say, in the world—and was amazed at the perfect cleanliness of the whole place. There were numbers of ladies walking about, looking about at the various operations, and their black dresses were as free from dust as they would be in a drawing-room.

While passing through Minnesota I saw one of the many ruses the Americans practise to prevent emigrants going into Manitoba, in which they see such a powerful competitor. I mention it here, as it may prevent many persons being deceived. I left my own carriage and went into one full of emigrants, for the purpose of questioning them as to their destination, prospects, &c. At one of the stations I remarked two Yankees, apparently farmers, chatting together in the telegraph-office. A little before the train started they got on board, but evidently wished to be thought strangers to each other. After a short time, one of them entered into conversation with a Scotch emigrant, and discoursed eloquently on the horrors of Manitoba—said it was a swamp, that he had gone up there to farm, had lost nearly all he possessed, and given it up as a bad job. He called the whole thing 'a big take-in' on the part of the Canadian Government. The other fellow, meanwhile, joined in and recounted his experience to a gaping audience; and then both praised Minnesota and Dakota in the most extravagant terms, pointing out the very country we were passing through (splendid land some of it appeared to be) as a

specimen of what they could get for next to nothing if they chose to settle in the neighbourhoods in which they said they had just taken up land—curiously enough, one in Minnesota, the other in Dakota. I don't know how it ended, but I have little doubt they induced some of their hearers to remain in the States. The men were afterwards pointed out to me as 'touters.' I may say that great inducements were offered me by a land agent if I would consent to remain in Minnesota and get some of my friends to come out and join me there. To anyone intending to go to Manitoba or the North-West I would decidedly say, do not be kept back by any of the numerous American agents you will meet, no matter what apparent advantages they may offer you. Undoubtedly the land in Northern Minnesota and Dakota is nearly as good as that in Manitoba; but most of the good land—indeed, all of it within convenient distance of the railway—is in the hands of the railway company, and is dearer than land in Canada. Another thing the settler must bear in mind is that the average yield of Minnesota is but 18 bushels per acre, while that of Manitoba is 25.

A short time after leaving the station of St. Vincent we were whirled across that imaginary line which separates the United States from Canada, and I was at last in that land which had been haunting me day and night for months past—Manitoba. Must I confess it, my feelings were at first anything but jubilant. At Winnipeg, however, the bustle and business-like air that pervaded the whole place, late as the hour was, nine at night, reassured me somewhat, and this feeling was strengthened on reaching the 'Queen's' hotel, where I was shown into a most comfortable bedroom, as nicely furnished as one could wish. Next morning—Sunday—I explored the city, and was utterly astonished at what I saw. Some eight or nine years ago Winnipeg was a wretched village with a couple of hundred inhabitants; now it is a thriving go-ahead little city of 12,000 or 13,000 inhabitants, the floating population alone being estimated at 1000. I went into the Presbyterian place of worship and found assembled 1200 or 1300 fashionably-dressed persons; in fact, but for the organ, which I consider a decided improvement, it would not have been hard to believe I was in the church of some Presbyterian divine in the good town of Belfast.

Two very fine rivers join at the city of Winnipeg—the Assiniboine and the Red River, which are navigable for hundreds of miles. To give some idea of the importance of Winnipeg, I may say that it supports three banks and some eight or ten very good hotels; has a very nice club and six or eight churches, which are generally well filled. There is a very fine college and public schools; the shops are much better than in any town of equal size in Ireland. One can get almost anything, from a 'white elephant' to a lady's hair-pin in them. The trade is both extensive and brisk.

On Monday I called on Mr. Hespeler, the Government agent at Winnipeg, who procured me horses, &c., with which to commence my journey North-West. I take this opportunity of thanking both him and Mr. Reed, the intelligent head of the Land Department at Winnipeg, and also Mr. Disbrow, for their kindness in giving me information and facilitating my movements in the country, and I believe I am safe in saying that any settler calling upon those gentlemen will receive courteous attention at their hands and valuable and reliable information. Mr. Hespeler introduced me to a member of Parliament from Ontario, who wished to see

part of the country, and asked if I would allow him to be my travelling companion for a few days, to which I gladly consented. This gentleman is an example of what a little pluck can do in Canada. Thirty-two years ago he arrived in Ontario with no capital but his trade, that of a blacksmith; he has now retired from business, having amassed a large fortune, and is spending his time in travelling, and in attending to his Parliamentary duties. I started at noon on one of the hottest days of this year in Manitoba, on my North-West journey, but I felt no inconvenience from the heat, except being compelled to take my team along very slowly. For some miles outside the municipal boundaries there is a good deal of low, scrubby land, this district being a half-breed reserve settled almost entirely by half-breeds whose farming is not good. Yet, in spite of this, the evident want of drainage, and a late season, I saw some wonderfully heavy crops of wheat. The soil surprised me greatly. Having heard a good deal of it, I was prepared for something uncommon, but did not expect the black, rich, heavy loam which I found. I went but twenty-five miles the first evening, stopping at a small wayside inn for the night. My landlord took me to see a field of barley, sown on the 12th of July—it was eight or nine inches high on the 6th of August, when I saw it. He told me that if the September frosts—a light frost sometimes comes for a night or two early in September—did not cut it off, it would yield a fair return. To this point, and for some miles beyond it, the country seemed to need draining. Here I made my first acquaintance with the mosquito, or rather with a whole family of them. I had met single members of the tribe before, and I must say I should have preferred their room to their company. Next morning I started on my way at 5.30 a.m., and had to make a detour of nine miles to avoid an impassable part of the track. Now that the Province has been divided into municipal divisions there will be some effort at road-making. I was not sorry to leave the beaten track and have to strike out a course for myself through the prairie; it was a novel and enjoyable experience. I found the prairie not nearly so monotonous or uninteresting as I expected; there was not much heavy timber, but quite enough of one sort or another to brighten up the landscape, and a good deal of it was large enough for building purposes. From Poplar Point to Portage-la-Prairie the land seemed perfection; dry and workable soil, light, but rich in the extreme—evidence the magnificent crops of wheat we passed. I was greatly surprised by the number and variety of the birds—one species, resembling our blackbird, is becoming quite a nuisance, there are such numbers of them. However, they can easily be shot down if necessary. A farmer to whom I spoke of them shook his head, and said, 'They are bad enough, but there's plenty for us all; in spite of them I shall have over thirty-five bushels to the acre.' About High Bluff I saw several Indian encampments, they looked very picturesque, but less so than the occupiers with their peculiar dress. I had the curiosity to enter one of their wigwams—they might be cleaner without being open to the charge of fastidiousness. Portage-la-Prairie, which a few years ago was part of an uninhabited waste, is now a thriving little town with a couple of hotels, and half a dozen machine depots. About twelve miles from Portage a Mr. McKenzie has very extensive farms. I was received by him with much kindness. Mr. McKenzie showed me two fields of wheat, off one of which he had taken ten crops in succession, off the other, two; the crops

I saw were the eleventh and third, and the eleventh was ever so much better than the third, the ear being longer and the grain larger, while the straw was less luxuriant. He showed me two short horn bulls just up from Ontario; they were fair animals. Mr. McKenzie considers that cattle do even better in Manitoba than Ontario, in spite of the more severe winter—severe as regards degrees of frost only; otherwise it is a less trying winter, and cattle have not to be housed longer than in the lower Province. He is a good authority, having been an Ontario farmer himself. On this farm I saw some excellent roots, beet and mangel, and a magnificent crop of potatoes. About twenty or twenty-five miles North-West of Portage, there is a belt of poor land some twenty miles wide. As soon as that is crossed you get into beautiful dry rich rolling prairie, practically unlimited in extent. On my return journey I made another detour and was much pleased with the country. The great numbers of cattle I passed in wonderfully good condition shows plainly they can be kept without difficulty during the winter. These cattle were large, coarse, thick-skinned brutes, that a grazier in this country would despair of making anything of, yet here they were quite fat, and this after passing through the severest winter the Manitobans remember. So much for the prairie grass; the introduction of good blood will give it worthier subjects to feed. I saw many magnificent work-oxen among them, and the cows, as a rule, appeared to be good milkers.

These oxen are very useful for draught, their great strength making them particularly so in a country intersected with 'slews' and broken land. For 'breaking' the prairie they are invaluable, the sod being very tough, making it hard work for horses; besides, the ox requires no food but grass, and the horse cannot live without a liberal supply of oats. I am told that oxen trained in Manitoba, are much better and faster than those brought from the United States; the latter are usually slow and very stubborn. I was amused on one occasion by the remark of an ox-driver. He had a pair of truly obstinate brutes to deal with, and was using both his whip and some very unparliamentary language without seeming to affect either their hides or hearts much. I said to him, 'You seem to have rather a hard time of it, my friend, since you find cursing, and the whip no good. Why not try a blessing and a little gentle persuasion?' 'No use,' said he; 'I tried those in the beginning. I have been driving oxen for the last five years, and though you would scarce believe it, I was a religious man when I began, but I have at last come to the conclusion that one can't serve God and drive oxen; it is impossible.' The best authorities, however, tell me it is not impossible; that abuse seems to stupify the animal, but that gentleness with a judicious use of the whip will make them do good work. I reached Winnipeg late at night, the last ten miles having been got over amid the glories of the most magnificent thunderstorm I ever witnessed—the lightning was vivid beyond imagination. The thunder was not very loud or frequent, but the noise of the rain was quite sufficient to make up for this. There are usually a number of these thunder-storms during the summer, but very rarely is any damage done by them. Next day I left Winnipeg, prepared for camping out—and a most enjoyable way of living it is—and started in a south-westerly direction. I met my first mishap crossing the ferry just outside Winnipeg; my horses fell 'all of a heap' on the ferry-boat, but lay

quietly till we relieved them, and then got up uninjured. We travelled for some miles close to the river; the land was first-rate, and much of it was covered with light timber. Near Morris I was struck by the peculiar appearance of some fields of wheat, part of which seemed to have failed, or to have suffered from some blight, while the rest was covered by a luxuriant crop. On inquiring the cause, the owner told me it was the effect of a hail-storm. These hail-storms sometimes do damage; they generally occur in July, and are extremely partial, cutting the crops down in a belt perhaps a mile wide, but perfectly straight, right through the district visited. It is well they are not very frequent. The farmers, however, do not make much of it, as they say there is always enough left to pay them. The return is generally eight bushels instead of twenty-five. Leaving Morris behind, I passed through an immense marsh on my way to the 'Lowe Farm.' The Messrs. Lowe have something like 19,000 acres in this neighbourhood in two farms. The land is excellent, but too wet; it is admirably suited for stock-raising, as there is abundance of hay. There is some difficulty about the water-supply, which, I am sure, will be overcome. They are fortunate enough to have one of the Government cuttings run near them, which will drain their land thoroughly, and it will then be fit for any purpose. I had from this place a drive through many miles of flat treeless prairie, much of it marshy, and I could boast a fair experience in the art of extricating myself from a 'slew,' by the time I reached Nelsonville, the land about which place is very fine, rolling, dry, and rich. Here I met a north of Ireland farmer, who seemed much pleased with the country: he had taken up 320 acres. My next drive was through the Pembina Mountains. I was greatly pleased with the land, which is rich and very easily worked. Three years ago there were not a dozen settlers in the whole district; now for fifty miles round there are few, if any, quarter sections unoccupied. In the big Pembina Valley, which is a really beautiful spot, I met two young Irishmen, Messrs. Armstrong and Atchison, whose only cause for grumbling was the scarcity of wives; they told me if I could bring out a cargo of eligible young ladies, I would make my fortune. Here two days' rain gave me a very disagreeable opportunity of judging what wet weather in Manitoba is. I was, however, none the worse for a thorough drenching, nor for having to let my clothes dry on me: I should not like to try the experiment in this country. Remarking on my escape to a settler, he said, 'Pooh! I am here four years, and have never heard a man cough yet.' I saw a good deal of the country in the direction of Rock Lake, but had not time to go as far as the Turtle Mountains. I next visited Mountain City, the property of Dr. Codd and Mr. Bradley. As the embryo city occupies a good and central position as regards some of the other towns, and is in the middle of a rich district, the owners may be congratulated.

About ten miles east of Mountain City is the Mennonite Reserve, which stretches forty miles towards Emerson. These people have a tract of magnificent land; they are very thrifty and hard-working, and, as contract labourers, are much better and cheaper than any others in the Province. But they are not over-clean, either in their persons or in farming. Their crops were very good, but showed careless cultivation. They grow very fine flax for seed. Their cattle also are very numerous and of fair quality.

Having spent a good while examining this settlement, I started for Emerson, which place I reached late in the evening, and left it next day on my homeward journey, having travelled over several hundred miles of the country; and yet I feel it almost presumptuous to speak as having seen it, so small was the portion I examined compared with the vast whole. I shall now give some idea of the crops, climate, etc., under their various heads, and state the conclusions I drew from my visit.

CLIMATE AND SEASONS.

The climate of Manitoba and the North-West is one of their most serious drawbacks, but we are inclined to look upon it as a much more serious affair than it really is. Description will do little to remove these impressions: it must be experienced to be understood. At home, excessive heat is generally accompanied by oppressiveness, with its attendant weariness and inertia; and cold, as a rule, with dampness, which makes it raw and piercing. Now this is not the case in Manitoba or the North-West. The heat at 100° was undoubtedly very intense, but—and I speak from personal experience—without sultriness. I perspired freely, but otherwise felt no inconvenience, and had energy enough for any amount of work. This was an unusual degree of heat; the summer mean is, I believe, about 70°. Usually during summer there is a pleasant breeze, and the higher the thermometer stands the more likely is there to be a breeze. No matter how hot the day, the night is sure to be cool. In winter the cold is very great, but nothing like what it is at home in proportion to the degrees of frost; if it were, animal life would cease, for the thermometer sometimes sinks to 40° and 50° below zero—just imagine what that would mean in England!—but when it does so it is certain to be accompanied by a bright and perfectly still atmosphere and a warm sun. However, as a rule, it stands at from 10° to 15°. As I had not an opportunity of experiencing it myself, I was not content with the testimony of the ordinary settler concerning it, but had that of such men as the Bishop of the Saskatchewan and clergymen of various denominations, as well as bankers and others, on whose opinion I could rely. All agreed in saying that one feels no colder when the thermometer stands at 40° than when it is at 10° below zero, and that winter is a delightful part of the year. Numbers of people from Ontario said the climate of Manitoba compared favourably with that of Ontario. There are, however, slight deviations which are intensely disagreeable. In the summer there are sometimes extremely high winds and hail-storms, and in the winter storms of wind and snow—‘blizzards,’ as they are called. In spring and early autumn frosts sometimes occur, which do no good to the crops; but all these things apply to the Western States of America just as much as they do to Manitoba. Indians camp out in their wretched canvas-covered tents during the most severe winters, and white men, when hunting, have often to do the same, and think nothing of it. A curious fact is that Europeans, for the first two winters, bear the cold better than the Canadians themselves. Snow does not fall to any extent till the beginning of the year, and seldom exceeds an average of eighteen or twenty inches in depth. When the thaw comes it is unaccompanied by that abominable slushiness we have at home; the snow evaporates leaving the ground dry.

During spring and early summer an immense deal of rain falls; drought, which so often ruins the farmer in the United States, never occurs here. The dews are so heavy that one would imagine there had been a fall of rain in the night. The seasons are as follows: Spring, April and May; summer, June, July and August, and part of September; autumn, part of September to the middle of November; and then winter. Of course in so extensive a country as Canada there is some slight difference in climate. In Ontario the harvest is ten days earlier than in Manitoba. All agree that as regards health the climate of the North-West cannot be surpassed.

SOIL.

The soil varies much, as it is natural to suppose over so large a tract; but as a rule it is a rich, black, vegetable mould, working very like clay—rich beyond imagination—and resting on a marly clay. The depth of the surface soil varies a good deal, in some places not more than ten or twelve inches, in others as many feet. I am informed that chemical analysis has proved the soil to be the best adapted of any in the world for the growth of wheat, and certainly practical experience bears this out. It is very easily worked, becoming as fine as powder. However, there are all descriptions of soil to be had here, from the heaviest clay to the lightest sandy loam.

PRODUCTS.

Wheat, of course, is the principal product, barley next, and then oats. Indian corn (maize) does fairly in some places, but is not grown to any extent. Oats seem to ripen too fast, and while it yields a great number of bushels to the acre, is not up to the mark as regards quality. Potatoes are an excellent crop, both as regards quantity and quality (though I did meet some of a poor enough description); all roots grow to perfection. Among the grasses timothy and cocksfoot prove a success; clover yields a good return; lucerne and Hungarian grass thrive wonderfully. As regards the average yield I must say of this country as of Ontario, that it is absurd to strike an average. About twenty-five bushels is given as the average for wheat, but I have seen forty-five to the acre; six to eight tons is considered an ordinary crop of potatoes, with the most extraordinarily rough cultivation. Of course, climate is a very important factor, but I have no hesitation in saying that any man who understands his business can secure in Manitoba heavier yields of any crop that will grow there than he can in this country, and with one-half the labour and expense. The natural grass is wonderfully nutritious, and is excellent food for cattle and sheep. Sheep-farming is getting more and more popular every day. Curiously, the sheep seems to prefer the coarser parts of the grass. I am doubtful of Manitoba ever being a fruit country; strawberries, raspberries, currants and plums will do well, and grow abundantly in a wild state; and I have seen apple trees that looked as if they might bear—it seemed a struggle with them to hold their ground; but peaches, grapes, &c., will not grow. Melons, tomatoes, &c., can be

grown in any quantity, and of the very finest description, in the open air. These I saw I thought finer than any I had seen in Ontario. Garden vegetables of all descriptions abound, and I was delighted by the blaze of colour the flower-gardens in front of the Mennonites' houses presented.

CULTIVATION.

June and July, and, in a wet year, part of August, is the time for breaking the prairie; the sap is well up in the grass, &c., which is easily killed by the summer heat when turned up, and the ground is wet, making easy ploughing. The sod is merely pared, the more lightly the better; the furrow turned is about fifteen inches wide. In the autumn or spring the furrows are backset, the plough turning about three inches of soil. In the spring the seed is sown, often without further ploughing, and harrowed in; as often as not, rolling is neglected. Wheat is sown from the 15th of April to the 15th of May, the earlier the better; oats till the end of May, and barley till the end of June. I have seen barley doing well that was sown on the 10th of July. The quantity of seed to each per acre is about the same, viz: two bushels. Harvest begins in the middle of August; potatoes, turnips, &c., can be sown till the 20th of June, and fall ploughing, the great secret of success, can be carried well into November. The hay harvest, in July, is a simple affair. Prairie hay costs about a dollar a ton by the time it is in the stack; a crop can be raised on the turned-up sod, but except as a makeshift the first year, it ought not to be done, the yield is sure to be poor. The farming implements are all of the very best description, made with a view to the saving of labour. A man with a breaking plough and a good team can break or backset one and a half to two acres per day, and with a gang plough and four horses about double that quantity. With a self-binding reaping machine attended by two stokers, from twelve to fifteen acres can be cut, bound, and stooked in a day. I have seen these machines do wonderfully clean work. Manure is of no value, and is either burned or carted to the nearest river (the Mennonites make fuel of it). It will be years before the land requires it, or indeed would bear it. I do not say that our high-class English and Scotch farming is at all necessary for success, but I am persuaded, and it is proved, that care and skill are amply rewarded; no farmer need fear failure in Manitoba. I have, among my notes, a list of fourteen men all getting on well, who told me that until they came to Manitoba they never lived out of town.

MARKETS.

Up to the present, and for some years to come, there is a ready market in the country for all kinds of produce, owing to the influx of settlers. The prices to be had for every thing would almost pay in this country: wheat, in out-of-the-way places, $1\frac{1}{2}$ to 2 dollars per bushel, and I have been charged as high as 1 dollar a bushel for oats—the general price is about 70 cents; potatoes as high as 40 cents, and every thing else in proportion. Timothy hay sells readily for 15 dollars per ton. Two shillings a bushel for wheat on the farm would pay the grower. Long before the country is

settled enough to lower these prices, Liverpool will be the market for Manitoba and the North-West. Since my return from Canada I had the pleasure of hearing that the Canadian Government have made arrangements with a number of English capitalists for the construction of the Canadian Pacific Railway, binding them to have it finished within ten years. The line will be about 2800 miles long, so it natural to suppose that within three years at furthest between 800 and 1000 miles of it will be completed ; this with two or three branch lines, which are also under contract, will open up and bring within marketable distance of Liverpool a tract of country that, no matter how rapidly settlement progresses, cannot all be taken up, much less cultivated, for the next forty years ; besides this, in May of the present year, the Government granted a charter to a company, entitled the Winnipeg and Hudson's Bay Company, who want to open up the Hudson's Bay route ; they are bound to have the railway to Port Nelson opened within six years. It is supposed that steamers, made on the same principle as the Sealing steamers, will be able to navigate Hudson's Bay for three months of the year. This route will bring the great wheat fields of the North-West nearer to Liverpool than New York is, so that on the score of markets for their produce the settlers have every reason to be satisfied. I think I am safe in saying that it will be possible to place wheat from the Saskatchewan on the Liverpool market for about 28s. per quarter, if not less, with profit to the farmer. And by the American storage system (our warehousing plan extended) a farmer might almost sell his corn to a buyer in Liverpool while it was still at the railway station nearest his homestead. By this I mean that a broker in Liverpool would feel himself safe in buying it. There is an elevator at almost every station for storing the corn. When it is taken in it is graded, and the owner is given a docket showing the grade and number of bushels, which docket is negociable anywhere.

CATTLE, SHEEP AND HORSES

thrive well, and in spite of the long winter, during which they must be housed. Stock-raising is found very profitable, hay can be had in abundance, and cattle keep their condition well on it. I see no reason why they could not be shipped to England from Manitoba when the Canadian Pacific Railway is finished. At present there are not many well-bred cattle or sheep in the country, but the number is increasing rapidly year by year. I made searching inquiries regarding the danger of spear-grass to sheep, and found it was very much exaggerated ; it is only to the careless or lazy farmer it presents any difficulty ; it is by no means common, and in the districts where it grows it can be rendered harmless by eating it down early, or by running a mowing machine over the patches of ground covered by it. I heard some complaints about the difficulty of keeping horses in Manitoba. In my opinion, and I judge by what I saw, it would be entirely obviated by supplying plenty of good hay and oats. Horses cannot live on the prairie grass. Mules are extremely good, some of them magnificent brutes, standing seventeen hands high ; they seemed to grow fat on the grass, and are altogether hardier and more adapted to the country in its present state (till more timothy and oats are grown)

than the horse, but they are much dearer. Oxen, however, are the mainstay of the farmer in cultivating his farm, in fact, in breaking the prairie he could scarcely do without them—they are powerful brutes, and for oxen, are wonderfully active; they cost nothing for keep, and also have the advantage of being cheaper than either horses or mules. An ox costs about £14, a horse about £25, and a mule about £35. Good milch cows can be had for about £8; sheep, 12s. to 18s. each. I forgot to say that the pig seems to be at home here, as everywhere else. I saw some prize Berkshires, eighty miles from Winnipeg, that had been brought from Ontario, and seemed happy in their new quarters. The ordinary diseases to which stock are liable in Ireland are unknown in any part of Canada, nor is there any, that I heard of, peculiar to the country.

TREE CULTURE

is comparatively easy. The soil must be dry, and in a state of thorough cultivation. Make the pits one-half deeper and wider than the roots require, and plant one inch higher than the old mark on the stem, at a distance of about seven feet apart in every direction. In making a plantation, if possible let a convex surface be presented to the prevailing wind, as this will greatly aid the growth. Keep the ground free from weeds and long grass among the trees, and, as the plantation rises, cut just enough to prevent the trees interfering with one another's growth. Spring, from 1st of April to 1st of June, is the time for planting. Two men ought to set about 200 trees a day. When the ground is ready for them, let the plantation be fenced in and protected from prairie fires, the natural enemy of forests in the North-West. It will be said, Where are trees to be had? There are millions of young plants in any of the belts of timber growing along the river-banks. Many species grow from cuttings, in particular the cotton-wood tree. In planting cuttings, sink them deep, leaving but one or two buds above the ground. Other kinds grow very rapidly from seed, particularly the soft maple, which I have seen 18 inches high nine months after the seed was sown; and plants but ten years old were from 8 to 10 feet high, and quite bushy. These are beautiful and useful trees. The seed is to be had in abundance. It ripens in June, and should be sown at once, as if it dries it fails to grow.

Perhaps I have been too particular in giving these details, but I consider tree cultivation of the utmost importance. Nothing can speak more strongly for the luxuriance of the natural grasses, and consequently for the richness of the soil, than the fact that these great treeless prairies do not suffer from drought, and are so wonderfully productive. It is well known that the destruction of forest over large tracts of country is usually productive of barrenness of the soil from two causes; 1st, moisture is not attracted; 2nd, any moisture there may be is evaporated from want of protection. Tree-planting also has a material effect upon the temperature, and breaks the force of the winds, etc. While I do not say that the North-West requires increased dampness, nor would it be an improvement in such a cold country, the value of the shelter afforded by plantation, putting all other considerations aside, cannot be calculated. If the Government would again put the tree-culture regulations in force, and

have some simple instructions drawn up and circulated among the settlers, and force the regulations to be rigidly adhered to, I think it would benefit the country.

FENCING

Is an easy operation. I have known two men put down an English mile long of fencing in a day. The snake fence is much used.

BUILDING

is not at all so difficult as I had supposed. A settler can, by giving his own labour and that of his oxen, and hiring a man who understand the building of log-houses, have a comfortable log-hut put up—about 18 by 22 feet inside, with a good loft overhead, well-thatched, the crevices filled in with brick-clay, and nicely whitewashed—for about £15. These huts are warm and comfortable. Better-class houses are expensive, as lumber is dear in Manitoba, on account of the scarcity of timber. However, brick-clay can be had almost anywhere, and I believe bricks will soon be commonly used. The wooden houses in Winnipeg are being rapidly replaced by handsome brick structures.

WATER.

The settler must, above all things, make sure that there is a good supply of water in a neighbourhood before he decides on taking land there. Very often there is none but brackish water to be had in a whole district—sometimes none at all; but, as a rule, there is an inexhaustible supply of delicious water to be had by digging from 16 to 40 feet for it.

FUEL.

Timber is the principal fuel, but there are large peat-bogs in the country which, when properly utilised will yield a fine supply of splendid fuel. It is black, hard peat, and gives an intense heat. There is also an ample supply of coal in the Saskatchewan district. which will come into use on the completion of the railway.

LABOUR.

There are plenty of men to be had, but wages are high. A man will earn from 8s. 4d. to 12s. 6d. per day during the spring and summer; but £30 to £50 a year with board is the usual hire of a man by the year. Women servants are scarce, and command almost as high wages as the men. Cultivating can be done by contract, and for men of capital this is by no means a bad plan. Cultivating by contract costs—for ploughing, sowing, cutting, and threshing—about £25s. the first year, and £1 13s. after. The Mennonites do this kind of work cheaper and better than the Canadians. A Mennonite will break an acre of ground for 2½ dollars, while a Canadian charges 4 dollars.

PROVISIONS, MACHINERY, &c.

Winnipeg is by no means a cheap place to live in, at present at least ; tea, coffee, sugar, and meat are fully a third dearer than in Ontario. However, this will not be for long, and even now makes very little difference to the settler.

Farming implements are much dearer in Winnipeg than in Ontario. And I believe, in spite of what is said to the contrary, that it would pay the settler to bring the heavier articles of his outfit with him from Ontario.

I was, however, glad to hear that lately several houses have opened on the 'ready cash' system, and are selling much cheaper than the credit houses, as is but natural. But what pleased me most in the matter was that the farmers are nearly all taking advantage of them, which speaks well for the country.

DRAINAGE AND ROADS.

These two may well go together, for until the country is properly drained there can be no roads and the present tracks over the prairie have neither right nor title to the name. During fine weather they are uncommonly pleasant for travelling on, as the beaten soil becomes as hard as metal, but a single shower changes the aspect terribly, and the traveller finds himself floundering in a mass of black, sticky mud. This is a characteristic of Manitoba only ; the North-West is much higher and drier, and requires little if any drainage, so that the tracks are always in fair condition. Manitoba, on the other hand, is rather low and wet, but there is very little of it that cannot be easily drained, and the Government are spending 100,000 dollars a year on drainage works ; they are making deep cuttings all through the country, so the farmer can easily manage the rest by surface drainage ; this must soon have a wonderful effect. Within the last twelve months the province of Manitoba has been divided into municipal divisions, and each division is bound to see after the proper maintenance of its roads and other public works.

SCHOOLS AND TAXES.

The taxes in Manitoba are so light that they are not worth mentioning ; they do not amount to more than a few pence an acre. Schools here, as in Ontario, are supported by taxation ; of course they are not yet very numerous, but they are quite adequate for the requirements of the country, and will, I am sure, be kept so.

PURCHASE AND DIVISION OF LAND.

The country is divided, into belts, 5, 15, 20, and 50 miles on each side of the railway and these belts are again divided into townships of 6 square miles each ; these sections again are divided into quarter sections of 160 acres each. Two sections in each township are set apart for school purposes, and two belong to the Hudson's Bay Company. The sections are uniformly numbered from the south-easterly to the north-westerly angle,

the odd-numbered sections in each township are railway lands, *i. e.*, lands to be sold to realise funds for the construction of the Canadian Pacific Railway, and the even-numbered sections are set apart for free homestead and pre-emption lands. The lands are priced according to the belt in which they lie ; in other words, their distance from the railway. In Belt A, the railway price is 20s. ; in B, 16s. ; in C, 12s. ; D, 8s. ; and E, 4s. per acre. The pre-emption price is generally half the railway price. Each settler who is either the head of a family, or a male over eighteen years of age, is entitled to 160 acres free, except for a fee of £2. He must have his name entered for it at the nearest land-office, and must reside on it for three years, and cultivate it to a reasonable extent, according to his means. He is allowed two months, which is counted part of the three years, after having his name entered, for moving his family on to the land. He can also be absent from his homestead six months out of each year. A second quarter section can be pre-empted, for which a fee of £2 has to be paid. No further payment is made till the end of the third year, when four-tenths of the price is required, after which payments at the rate of one-tenth each year for six years complete the purchase. Six per cent interest is charged on the pre-emption money.

Emigrants are received in Manitoba by agents specially appointed for the purpose, who will advise and guide the settlers to the lands that may have been selected by them.

INSECT PESTS AND PRAIRIE FIRES.

I made particular inquiries concerning the grasshoppers when in Canada and found that when they do visit the country, vegetation simply disappears along their line of march. They have, however, only appeared five times within the last sixty years, and the settlers are confident that they have seen the last of them. One gentleman told me that they entered his drawing-room through the window and destroyed the lace curtains in it. By cultivation the eggs are destroyed, so that it is to be hoped the country will see them no more. Mosquitoes and black flies cause great annoyance, especially to the new-comer, during the summer months ; but drainage, the great enemy of these pests, has been carried on to a great extent throughout the country, so that it is likely they will become less troublesome ; they are not found in the towns, nor in the high dry parts of the country. Prairie fires are becoming much less frequent than formerly ; however, numbers of them still occur every fall, doing considerable damage ; but it is only the careless or over-confident farmer who suffers, as the means of protection are simple and are within the reach of all. The potato-bug has not yet made its appearance in Manitoba, but they expect it to do so ; it seldom attacks potatoes planted in new land ; they are not much afraid of it, and it has lost half its terrors best to those who know it.

CONCLUSION.

Two questions I was constantly asking myself while in Canada were :
1st. Why do the Canadians come to Ireland ? If it be for the sake of

scenery they are unwise, for, to use an expression of their own, their scenery 'whips ours all to bits.' If it be for the sake of comparison, that they may think more of their own country on their return, I can understand it. 2nd. Why do the Irish prefer hard work and misery at home to peace and plenty in that grand new world? I know that numbers of Irish do go to Canada, and that numbers of them succeed also, but what I mean is, why that number is not quadrupled, and why men of a class to whom success would not be a probability, but a certainty, *i. e.*, men who understand their business, and have a little capital, do not go out there. I could, if space permitted, give instance after instance of men who left Ireland paupers and are now well off, many of them rich; but is there need that I should do so? Where is the Irish family who has not some relative on the other side of the Atlantic, and that has not over again received that extremely pleasing proof of prosperity—a bank draft—from him? But these drafts, I am sorry to say, are oftener the fruit of work done for others than for themselves, for I was struck by the fact that the Irish seldom quit the large towns in which they have to work really hard for their wages, while they leave these rich lands to be occupied by English, Scotch, and German farmers, who quickly become independent and happy. This should not be so. If I am asked who ought to go to Manitoba and the North-West, I unhesitatingly say, any man who for any reason intends to emigrate to any place, and is not afraid of hard work and some discomfort for a few years, and whose family can get on for a time without the aid of female servants. Such a man will, if he has pluck, succeed in time, though he went without a penny, but if he has £100 or £200 in his pocket, he may expect to enjoy a prosperous and happy home in the immediate future. Anyone who cannot 'rough it,' or dislikes having his face blotched now and then by mosquito-bites, any 'ne'er-do-weel,' or drunkard, had better stay at home, or, for the benefit of humanity, drown himself on the way out, as he has no chance of succeeding.

I would have no one going to Manitoba too sanguine or expecting too much—this is a great mistake, and very fruitful of disappointment. There are serious drawbacks to be encountered, many hardships and inconveniences to be endured, but none that a little pluck will not overcome, and none that will not be amply recompensed for by the comfort and independence to be gained by bearing them for a short season. There is an intensely cold winter, a hot summer, bad roads, mosquitoes, and black flies; grasshoppers occasionally, hail-storms in summer sometimes, a prairie fire in autumn, and perhaps a slight frost in spring; but, as a man said to me, when I enlarged on these disadvantages, 'I don't care a cent for them! I can live, and live well, in spite of them all.' And it is true; the rich soil, that with a little labour pours forth its abundance, is to be had for nothing. The climate is good for man, beast, and crops. This, the appearance of all three puts beyond question. The people are law-abiding and kind, the prices to be had for everything at present are very good, and it can be at most only a few years till the country is in direct communication with the home markets. Then indeed the settler will have just cause to congratulate himself on having chosen it as his home, for, as well as bringing him greater profit, it will bring him close to, I had almost said within call of, his friends in the old country—much closer than he would be in any other colony in the world.

I was greatly pleased to find that religious dissension is unknown in this favoured region, and indeed throughout Canada. The Canadians are a religious but most tolerant people.

Anyone wishing for free-grant lands must go to the North-West, as those in Manitoba are all taken up; but he will be no loser by this, as the land is higher, drier, and just as rich; and 'cities' are springing up in every direction. Anyone, however, who has a particular fancy for Manitoba, can get plenty of land there for from five to ten dollars per acre. There are large tracts held by speculators who bought at low prices when the country was first opened, who are in many cases paying a high rate of interest on the purchase-money, and are, therefore, glad to sell at a fair profit. But no matter where he ultimately settles, there is one piece of advice I would strongly urge on every emigrant. Let him do nothing hastily. There are many interested parties who might lead him to make a purchase which, perhaps, would prove a disappointing one. The soil, surroundings, even the climate, are very varied, and great caution is therefore necessary in the selection of a location. A man should, if possible, spend six or eight months in the country, and go from place to place till he is satisfied. If he reaches Winnipeg in April, he will be able to get plenty of employment at good wages, and might work for some farmer for a month or so in each of the districts he determines to visit. At this time he will see the country in perhaps its worst state (but in my opinion, in the best for judging where to settle), *i. e.*, when the land is wet—every place looks well during summer and autumn when it is dry; but what a man wants to know is, what is dry in the spring. In the case of parties going out (and where at all practicable, I would advise a number to settle near each other, for the sake both of society and mutual aid), one man might go out and select a suitable locality—the others could follow. Of one thing I am certain: no man going out to the North-West determined to work, will be disappointed. Among the large number of settlers with whom I spoke, but three seemed discontented. They, I found, were town-bred, and had so little of the 'Mark Tapley' spirit in them, they would, I fear, be miserable wherever placed; and if presented with Manitoba, would accept a present of Ontario also.

For men who like sport, a visit to the North-West would be enjoyable. Some one calls it the 'Sportsman's Paradise'; and if innumerable prairie-chickens, ducks, plover, snipe, &c., &c., with an odd deer, elk, or bear for a change, can constitute it one, he spoke the truth. A shooting expedition to the North-West would be a comparatively cheap, and a very delightful, way for two or three friends to spend a holiday.

In Ontario the country is well settled and cultivated, and the farmer will have all the comforts of his old home, and others he could not have in this country; but then more capital is required and more skill is necessary.

One need not be a farmer, however, to get on well and live comfortably in Ontario. Men living on the interest of their money, and having children to educate, would find Ontario not only a pleasant but an economical place to live in. One could live there more comfortably on £200 per annum than in this country for double that sum, and get a higher rate of interest for his capital than at home. Besides, the educational advantages are exceptionally good.

Before closing this rather long account of Canada, I shall make one

other remark. I consider the Canadian Government not only unfair to themselves but to the country in not bringing their country more prominently before the British public as a field for settlement. Everything being fairly stated --advantages and drawbacks--there can be no doubt that the former outnumber the latter—and I cannot help thinking that if fair samples of the various Canadian productions were sent over for exhibition at our agricultural shows, they would such “a round unvarnish'd tale deliver” of the capabilities of the country, that many would be tempted to seek a home there.

A PAPER

CONTRIBUTED

BY MR. JAMES RIDDELL.

Of Miami, Manitoba, formerly of Dundee, Jedburgh, Scotland, who is temporarily staying at the latter address.

It has been suggested by the High Commissioner of the Dominion of Canada that I might write a paper giving my personal experience of Manitoba and the North-West Territory for the benefit of those who are intending to settle there. In doing so I must confine my remarks principally to Manitoba, where I have been for nearly four years. It is impossible to enter into any detailed account of the country without going over much that has already been written, but my remarks will be practical and based upon my own experience. Appreciating the difficulties of the Scotch Tenant Farmers' Delegates in their hurried visit to the country, I will first take the liberty of corroborating generally the statements they have made.

The class of people most likely to succeed in Manitoba and the North-West Territory are those who intend farming, as the country is almost purely agricultural. They would have greater advantages if men of practical experience, and willing to work themselves when necessary. Owing to the richness of the soil, crops can be grown with little trouble; still, when farmed according to the rules of good husbandry, it fully repays all extra time and care given to its cultivation. It follows as a certainty that the British farmer is, as a rule, capable of working the land of Western Canada to the best advantage to himself and to the country.

The best time for settlers to arrive depends on their proposed line of action. By arriving in the spring a difficulty arises through the absence of good roads, but this want is now being removed by railway extension westward, and by the province being divided into municipalities, which have the power to assess landholders for the construction of roads and bridges. The amount of assessment on a 320 acre farm ranges from 6 to 8 dollars a year, and if judiciously expended will, within a few years, make substantial roads. To enter on unimproved land and begin work immediately for the purpose of cropping the following year, spring (notwithstanding the state of the roads) is certainly the best time. The roads become good in June, and remain so if the season is dry; during the winter they are of course excellent. But any season would be suitable

for the arrival of young men who are in no hurry to begin farming for themselves, and wish to gain information from those who have been some time in the country. Those with families and who possess capital should allow the summer to be pretty well advanced before going to Manitoba.

There are lines of steamships to Canada, sailing from London, Bristol, Liverpool, Glasgow, Londonderry, and Cork, and I can speak as to the comforts and attention to be obtained on board the Liverpool and Glasgow steamers. Through tickets can be had to Winnipeg, the entire trip taking fifteen days.

Passengers by rail in Canada are allowed a certain amount of baggage, about 300 lb. weight; all above that weight is charged extra. It is well to take out personal clothing, such as tweeds (which will be found to be most profitable wear), flannels, blankets, cutlery, or any light household articles. Furniture and heavier goods can be bought in Winnipeg at reasonable prices. A few pairs of boots, not too heavy, without iron, would be found useful. It is only in summer that boots are worn, as moccasins, a kind of shoe made of dressed moose and buffalo hide, are used during winter.

On arrival at any of the ports, there are in waiting a staff of customs officials who do their duty agreeably, and all made-up clothing for personal use, and settlers' effects, are passed free of duty. When once your baggage is in the hands of the railway officials, you are relieved from further care of it, as a 'check' system is in use, which has been found to work satisfactorily. Every parcel is numbered, a check with a duplicate number is given to the owner, and on presenting this at the end of your journey your baggage is handed to you.

Now that the railway system is extended to Winnipeg, that city is perhaps the best centre for settlers to make for. On arrival, ample accommodation can easily be found at moderate charges. Settlers should be on their guard against persons who have land to sell, and on no account should they make a purchase until the land has been viewed, as many have been disappointed under the circumstances.

The selection of a location depends on the inclination of the settler, as well as the amount of money at his disposal. It is necessary to find out the prices of land in the different districts, which can be obtained on application at the Government Land Offices at Winnipeg, and elsewhere, or from the Land Regulations issued by the Department of the Interior. The Canadian Government have made provision for the sale of land extending 110 miles on each side of the proposed Canadian Pacific Railway, through Manitoba and the North-West Territories; and until final survey they have assumed a line running in a westerly direction from near Winnipeg. This district is divided into belts. The first belt of 5 miles on each side of the line is called A, and is sold at 5 dollars per acre; a belt of 15 miles (B) on each side adjoining belt A, at 4 dollars; a belt of 20 miles adjoining belt B, at 3 dollars per acre, and so on until the 110 miles are disposed of, the price decreasing the further the land lies from the railway. The above regulations apply to about one half of the area taken in, which is to reimburse the cost of constructing the railway, the other half being open for homesteads (free-grant lands) and pre-emptions (sold at half the price of railway lands) of 160 acres each, excepting school and Hudson's Bay Company's lands, for which 4 square miles are retained out

of every township (36 square miles). It is usual for those who wish for more than 320 acres of homestead and pre-emption to buy a piece of the adjoining railway land. The railway lands adjacent to the line, although held at 5 dollars per acre, in many cases are not so valuable as some 50 or 60 miles away, for the reason that unless the land is dry and loamy it is not so easy to work. Those who settle at a distance from the Canadian Pacific Railway may be fortunate enough to be within easy reach of some of the Colonisation Railway lines, which are being made to act as feeders to the main line.

The plan of survey is so simple, that when anyone meets with land on which he may desire to locate, its position is easily determined. The whole country is divided into townships of six miles square, each of these is divided into squares of one mile, which are again divided into four squares of 160 acres. Around every square mile a road is laid of about 100 feet wide. All surveys start and are numbered from the International boundary line.

The land along the Red and Assiniboine Rivers is heavy, strong clay, and in wet seasons is difficult to work; but with a dry spring and summer good crops can be grown. It is unlike the rolling prairie to the West, with its rose-bush and buffalo grass—unfailing marks of good dry, loamy land—where the soil is from 2 to 4 feet deep and is neither more nor less than decayed vegetable matter, resting on a layer of sand, with a subsoil of heavy blue clay. These dry prairies are naturally drained by shallow ravines and small streams, which now and again spread themselves out, forming a marsh or hay meadow. On land as described, timber is generally deficient, but the Government has taken the precaution to reserve timber lands with a view to sell to settlers on homesteads and pre-emptions to the extent of ten to twenty acres, according to quality. This arrangement has been a great boon to the community.

It must be admitted that there is a deficiency of spring water on the surface, but by sinking wells from ten to twelve feet a plentiful supply can be obtained. In the neighbourhood of running streams wells are not necessary, as the stream water is wholesome and pure. These dry lands are most preferable for settlement, and settlers would do well to locate there. A good deal has been written about the wet lands in Manitoba; and, no doubt, up to the present time they have formed a hindrance to settlers along the Red River Valley, but now that the Government are undertaking the drainage it will be to a great extent remedied, and the richness of the soil and the cheapness of the land will make it to the settler's advantage to continue in the same direction.

Keeping in view that this paper is designed for the guidance of parties intending to settle in Manitoba or the North West Territory, it may be necessary to allude to the mode of starting on a homestead. If the location is entered upon in spring, the party ought either to board with some neighbour, or, as is often done, tent out for the summer. This arrangement causes no delay in preparing the prairie for the following year's crop. The erection of house and other buildings can be left till the fall. As a rule, oxen are employed for the first year or two, until oats are grown for the keep of horses. It does not require a large capital to commence farming comfortably on a free-grant claim with the intention of gradually reclaiming it; the following is the usual outlay:

| | |
|-----------------------------------|----------|
| Two yoke of oxen..... | \$260-00 |
| One waggon..... | 80 00 |
| Two ploughs and harrow..... | 58-00 |
| Chains, axes, shovels, etc..... | 30-00 |
| Stoves, beds, etc..... | 60-00 |
| House and stables..... | 200-00 |
| Mowing-machine..... | 80-00 |
| Cow..... | 35-00 |
| Provisions for one year, say..... | 150-00 |

\$923-00 = £190

Of course many men start on a smaller scale than this, with one yoke, of oxen, one plough and without a mowing-machine.

If land is purchased from the Government or private parties the price paid will require to be added to the above. Wild lands can be bought from private parties at from 2 to 5 dollars per acre, according to location. Those with larger capital would do well to buy some improved farm with 50 or 100 acres ready for crop, with dwelling-house and stabling. In this way a return is got at once for the outlay, and at the same time it saves many of the hardships one must naturally meet with in settling on a bare prairie. These improved farms can often be bought for less than the cost of improvements.

On an improved land the following is the mode of preparing for crop: The grass must be allowed to grow for some time, say till the middle of May, then plough about two inches deep, and ploughing can be continued till about the beginning of July. This is allowed to lie until the end of September, when it is turned back with an inch or two of extra soil. In this state it is ready for seeding with wheat or other crops. Care should be taken not to plough too deep either the first or second time—a mistake farmers from the Old Country invariably make, and thereby cause an excessive growth of straw. Linseed is grown with great success on the first ploughing in June, the seed being of much importance in stock-rearing. The land being dry, as soon as the snow melts and the frost is a few inches out of the ground the following spring, wheat should be sown; barley and oats in succession. Broadcast machines, eight or nine feet wide, with light cultivators attached, are chiefly in use, and have been found to make a great saving in seed. The quantities sown with this seeder are: Wheat, 1 bushel and 1 peck per acre; oats, 2 bushels; and barley, 1½ bushels. Vegetation is rapid, and harvest is generally begun about the middle of August. The reapers in use are all self-binding or self-delivering. They are lighter than the English make, but are capable of doing a deal of heavy work. Wheat requires to be bound almost as soon as cut, the straw being dry and brittle; but oats are usually allowed to lie a day before lifting. The Canadian system of lifting and binding is a decided improvement on the English or Scotch style: one man makes the band, lifts and binds his own sheaf. On a good average crop of wheat (say 25 bushels per acre), four men can lift and bind to a self-delivering machine, cutting 10 to 12 acres per day. After June or July almost no rain falls, consequently grain stacks are not thatched, but are thrashed as soon as ploughing is stopped by frost. Travelling machines, with horses or steam-power,

are for hire, and are paid by the bushel or the acre. Owing to the number of emigrants coming into the country, the towns and villages springing up, and the construction of railways, the market for wheat is local; but by the time there is a surplus, railway communication will be opened so as to admit of its being sent to Great Britain and elsewhere. Wheat at 75 cents per bushel would amply repay the grower in Manitoba, and, at present prices in London or Glasgow for American wheat, would leave a large margin for freight and other expenses.

I will here state the cost of raising wheat per acre on our own land for the years 1879 and 1880, likewise the average amount of produce for these two crops.

First, the cost, which I shall give at contract prices :

| | | |
|----------------------------|--------|------|
| Ploughing..... | \$2.00 | |
| Seed..... | .90 | |
| Sowing and harrowing..... | .50 | |
| Harvesting { | | |
| Reaping..... | .65 | |
| Binding..... | .85 | |
| Stacking..... | .35 | |
| Carrying and stacking..... | 1.10 | 2.95 |
| Thrashing..... | | 1.70 |

| | |
|--|-----------------|
| | \$8.05=£1 13 1 |
| Average of crops for 1879-80, 28 bush. per acre at 75 c. | 21.00=£4 6 3 |
| | \$12.95=£2 13 3 |

Cost of production per bushel, 1s. 3d., leaving a margin of nearly 13 dollars per acre.

This certainly is above an average yield for Manitoba at the present time, but I believe that with good management and fair seasons, the average will come up to this or even more.

If I mistake not, the two Royal Commissioners, Messrs. Read and Pell, stated that wheat could not be sent from Manitoba to Liverpool to pay the grower below 47s. per quarter; I have been unable to get a definite quotation of freights from Winnipeg to Liverpool or Glasgow, but the following is an approximate :

Wheat has already been sent from Winnipeg to Montreal—by rail to Duluth, thence by steamer to Montreal—at 30 cents per bushel. From Montreal to Glasgow freights for wheat have ranged from 68 cents to 1 dollar 44 cents per quarter say on an average 1 dollar 6 cents. This gives

| | |
|--|--------------------|
| From Winnipeg to Montreal 30 cents per bushel..... | \$2.40 per quarter |
| “ Montreal to Glasgow..... | 1.16 “ |
| Insurance, landing charges, etc., including weighing and allowance for shorts..... | .36 |

| | |
|-------------------------------------|-------------------|
| | \$3.82 = 15s. 9d. |
| Cost of production per quarter..... | 10 0 |

| | |
|-----------------------------|----------|
| Total cost per quarter..... | 25s. 9d. |
|-----------------------------|----------|

If these rates are correct—and I have every reason to believe they are—it is evident Messrs. Read and Pell have been led into error in their statements. American wheat at the present time is worth 53s. per quarter in Glasgow, which shows a large margin for the growers' profit in Manitoba. As soon as the Canadian Pacific Railway and the Hudson's Bay routes are open, there cannot be a doubt that the cost of transit will be reduced.

Cattle-rearing is likely to pay well, as it is attended with little expense. They keep their condition through the winter (where wind-brakes are provided) on marsh hay, and this can be had in abundance in almost any kind of season. It is cut in July or August, the earlier the better fodder it makes. The marshes are level, and mowing machines make good work in the cutting. The expense of making this hay does not exceed 1 dollar per ton, and the usual winter allowance per head of various ages is 2½ tons. At present, cattle are allowed to graze on any unfenced land during the summer, and find any amount of feed, such as wild tares, peas, and grasses. The best season for cows to calve is about the end of April. Young cows are worth 35 dollars per head; a three-year-old steer ready for work, 50 to 60 dollars.

Sheep can also be raised with profit. They can be kept during the winter without covering, and get fat on hay grown on dry prairie, this being finer than the marsh hay. A cross between the Lincoln and Cotswold will be found as profitable as any. Mutton is worth 12 cents per lb., and wool 30 to 35 cents.

The climate has been represented as being almost impossible to live in. It must be admitted that the winters are more severe than in Britain, but the air is so clear and dry that the cold is not much felt.

Writers on Iowa and other States seem to attach much importance to the severity of our winters, but it must be borne in mind that most of them have never experienced a winter in Manitoba. I have noticed a letter in a Scotch newspaper from a Mr. Lauder, Dunfermline, giving a most alarming account of the climate and soil of Manitoba. I find that many of the statements he makes are quite incorrect, and no wonder, as he was only there for a very short time during summer on a hunting expedition. As an instance of his inaccuracy, he states that there are eight months of winter and only four of summer, instead of this there are four and a half months of winter, and the rest spring, summer and autumn!

I have no idea of entering into the comparative merits of Manitoba with Iowa, or any other country, but it would be an injustice if I did not add my testimony to the advantages of Manitoba as a field for emigration. It has been said that Manitoba and the North-West Territory will be the granary of the world, and its rapid development, the amount of capital and skill which is being expended on the cultivation of its soil, and the towns and villages that have sprung up, are all strong evidences of the progress that has been made.

Winnipeg, in 1874, had a population of only 5,000 inhabitants, while now it is fully more than the double.

Emerson, Portage-la-Prairie, Nelsonville, and Rapid City, and many other villages, have also become places of importance.

With the privileges offered in Manitoba and the North-West Territory, where free grants of land are offered to the agriculturist, where land can be purchased for less than is paid in Britain for merely occupying it,

where all improvements are one's own, where education is free, and, in fact, where nearly all the comforts of the Old Country are to be had, it is surprising, at this time of continued depression in British farming, how few have availed themselves of such a favourable opening.

Extracts from the report of Messrs. Clare Sewell Read and Albert Pell, M. P., upon Canada and the United States, presented to both Houses of Parliament by command of Her Majesty, in August, 1880.

CANADA.

Upon the arrival of the *City of Montreal* at New-York, we were waited upon by the Hon. Robert Read, senator, with an invitation from the Canadian Government to visit Ottawa, and make a prolonged tour in the Dominion. We were compelled to decline the greater part of this kind invitation, but Mr. R. Read courteously assisted us in our investigations in New York and remained our guide and companion till we left Toronto.

Many of the general agricultural remarks that have been made apply equally to Canada and the United States. It will be only possible now to say a few special words upon the farming of the Dominion of Canada. We had not time to visit Lower Canada, nor did we see very much of Ontario. The arable farming around Toronto is decidedly in advance of anything we saw in the United States. The cultivation strongly resembled that of England, and for cleanliness and produce would compare favourably with some of its well-farmed districts. The soil is deep and fertile. The country has almost all been reclaimed from the primeval forest, and the labour that has converted that woody region into miles of smiling corn-fields, must have been no easy task. But in the great North-West, the country so recently opened to the over-populated countries of the Old World, there is no forest to subdue, or scrub to uproot. The whole is one vast plain, more or less fertile, which can be converted into a grain-field by the simple operation of two shallow ploughings. The soil around Portage la Prairie is a rich black loam, light of tillage, yet sufficiently retentive to withstand severe drought. In many places there appeared little or no variation to the depth of three feet. In some spots the land is swampy and low, but a few main dykes would dry many hundred acres, and with a soil so friable, no drainage for surface water could possibly be required. This vast region, called by some 'the future wheat granary of the New World,' had not in September last the advantages of any railway. In this respect Canada seems greatly in arrear of the United States. While in the latter country railroads, made sometimes with English capital, are run through a country almost unpopulated in order to develop it, in the Dominion no railroad is made until it has a population on or beyond it that may be expected to pay the working expenses of the new line. It may be that the original shareholders of the pioneer railroads of the States are often sacrificed, and their line is sold for a small sum to some wealthy

company. But if Canada is to be developed with a rapidity approaching that of the United States, the Dominion Parliament must spread its railway system somewhat more quickly. A far-seeing policy must anticipate eventual profits from opening a now inaccessible though rich region, rather than expect immediate payment from the traffic along the new lines of railroad that must soon be made.

Much has been said against the long and severe winters of Manitoba. No doubt the cold is intense, and that for well-nigh five months in the year all field-work is suspended. But it is a crisp dry cold that is not so unpleasant, and with the first sharp frost and fall of snow the roads that were before impassable become excellent highways for the cartage of timber and of grain. No doubt the grasshoppers did in the years 1875 and 1876 destroy the few cereal crops of the early settlers. But should they again invade the territory, it is confidently expected that with the increased acreage planted with grain, their ravages must be distributed over a much larger area, and will not be so severely felt. It is also argued that no Indian-corn can be produced in that northern latitude, and therefore it will never be a region of cattle and of sheep. Certainly stock must be housed during the winter months, and provender of some kind must be grown to feed them during that long and dreary season. But there is no reason why abundant crops of natural hay and artificial grasses, such as timothy, rye-grass, clover, and Hungarian millet should not be grown in great abundance, and the deep and friable soil seems well adapted for the cultivation of mangels and other roots.

No man should emigrate to the Far-West who is not prepared to work hard and live hard. He may successfully transplant an English family into this region of 'rude abundance,' but he cannot expect to take with him the comforts of an English home. For years all new settlers, but especially the female, must expect to rough it. The old, the sickly, and the faint-hearted should never emigrate, however poor and sad their lot may be in the Old Country. But to the young, the vigorous, and the courageous, who cannot get a comfortable living in England, Manitoba offers a home that will soon provide all the necessities of life, and in a few years of steady and well-directed toil, will probably ensure a competency, and possibly a moderate fortune. It may be a very good country for a farm labourer to settle in, but it appears especially adapted as a field for the practical hardworking stalwart young farmer who has a few hundred pounds in his pocket, and who would know how to spend it to the best advantage.

In the Appendix will be found the Government regulations, recently issued, respecting the disposal of public lands for the purpose of the Canadian Pacific Railway. The Order in Council of November, 1877, is now cancelled, and settlers who had taken up land under the order are to be dealt with, and their claims adjusted under the new provisions, which certainly are more encouraging to settlement than the old ones. We have also added in the Appendix a short account of the land system of the different provinces of the Dominion.

To those who could not endure the rough life of the West, there are many farms of 100 or 200 acres to be bought in Ontario and Lower Canada at from 50 to 100 dollars an acre. These farms many be near a good town or railway, and are well fenced, and upon which decent farm-houses and suitable buildings have been erected. There are also in those localities

sundry such farms to let at from 3 dollars to 5 dollars an acre ; or they can be hired by the tenant paying the rent in kind by a fixed portion of the produce, while occasionally the farm is worked in shares, the landlord finding all or a portion of the live stock of the farm. This may be an easy means for a farmer without capital to work his way up, but it seldom leads to any permanent friendly relations between landlord and tenant.

Our regret at not being able to describe more fully the agriculture of Canada is considerably modified by the fact that in the autumn of last year 14 tenant farmers' delegates from Scotland and the north of England visited the Dominion, and have since written a series of most useful and exhaustive reports. These reports have been freely circulated by the Department of Agriculture of the Canadian Government, and their contents are widely known. But there was one great feature of Canadian farming, viz., its dairy produce, which seemed to us to require some special notice, and we have therefore to call attention to the separate report of Mr. John Clay, junior, upon this subject, which will be found in the Appendix.

The following is a short SUMMARY of the LAND SYSTEM of the different PROVINCES of the DOMINION of CANADA :

In Manitoba and the North-West Territories free grants of 160 acres are given to any head of a family, male or female, or to any person over eighteen years of age, on condition of three years' settlement from time of entry. For the necessary documents for the registration and taking up a free grant the fee is 10 dollars, payable when the title is issued. A person entering for a homestead may also enter the adjoining quarter section (160 acres), if vacant, as a pre-emption right, and enter into possession thereof, and on fulfilling the conditions of his homestead, may obtain a patent for his pre-emption right on payment for the same at the rate of 1 dollar per acre, if outside the railroad belts, but if within such belts, at the price set forth in the regulations, the maximum price being 2 dollars 50 cents per acre (10s.).

Free grants of land are also made for the culture of forest trees outside the railway belts, in addition to the homestead, but settlers cannot take up the pre-emption land as well as the grant for the culture of trees.

The Legislaturo of Manitoba, in 1872, passed a Homestead Exemption Law, which in addition to exempting from seizure for debt the debtor's goods, as follows :—furniture, tools, farm implements in use ; one cow, two oxen, one horse, four sheep, two pigs, and thirty days provender for the same ; also enacts that his land to the extent of 160 acres shall be free from seizure, as also the house, stables, barns, and fences on the same, in the case of all writs issued by any court in the province.

Free grants of from 100 to 200 acres are also made in the provinces of Ontario and Quebec on residential conditions, and they also have homestead exemption laws, but not quite so liberal as that of Manitoba. Lands can also be purchased in these provinces at reasonable rates.

There is also land available for settlement in Nova Scotia, New Brunswick, and British Columbia on very reasonable terms.

CANADA

AS A

FIELD FOR SETTLEMENT.

Please read the following Extracts from REPORTS OF TENANT FARMERS, who visited Canada in 1879, at the invitation of the Canadian Government:—

Mr. JAMES BIGGAR, Delegate from the Stewartry of Kircudbright,

"I think it may be well to explain the footing on which the Delegates from other districts and myself recently visited Canada. You are no doubt aware that of late agents of the various Land and Railway Companies in the United States have been making extraordinary efforts to induce settlers to purchase and take up the large extent of unoccupied lands which they possess. Canada has lately discovered that she possesses in her North-West an immense extent of fertile country fit for settlement, and consequently invites a share of emigration, more especially from this country—partly to settle these new lands and partly to take the places of those farmers in Ontario and other older settled Provinces who are moving to the North-West. SO MANY PEOPLE HAVE BEEN DECEIVED BY OVER-DRAWN AND HIGHLY COLOURED PICTURES OF THE WESTERN STATES, PUBLISHED BY LAND COMPANIES, RAILWAY COMPANIES, SPECULATORS, AND OTHERS, THAT MUCH SUSPICION AND DISTRUST OF THESE AGENTS GENERALLY HAS ARISEN. The Canadian Government therefore decided on asking the farmers of this country to send delegates from amongst themselves whose reports would be received at home with more confidence than the statements, however true, of their agents who were strangers."

* * * *

"From Montreal to Ottawa we went by steamer on the Ottawa river, the scenery of which is very fine. The farms along this river vary from 100 to 150 acres, two-thirds cleared, and depend for their markets very much on the lumber trade, the greatest industry in this district. On the steamer we met a good many farmers who had come from Scotland 25

to 35 years ago, poor men, but who now owned farms of 80 to 150 acres. They spoke of their success with pride and satisfaction, and were evidently comfortable and independent."

"A very interesting collection of Manitoba products was shown in a separate building, and was much admired. Sections of the soil, three to four feet deep, were shown, and specimens of its productions, including grain, hay, vegetables, and turnips, which were very good."

"AS A FIELD FOR WHEAT-RAISING I WOULD MUCH PREFER MANITOBA TO DAKOTA. The first cost of land is less; the soil is deeper and will stand more cropping; the sample of wheat is better, and the produce 5 to 10 bushels per acre more, all of which is profit; and as soon as the new railway is opened the cost of delivering it at the sea-board will be the same or less."

"With regard to the competition of this Western wheat in our markets, wheat sold at 70 cents in Manitoba leaves a good profit to the grower, and will cost, delivered in England, about 4s. 6d. per bushel, a price which does not pay the English farmers. It is evident, however, that this western grain is affecting the Eastern States of America quite as much as this country. The average crop at the United States is surprisingly low, the return for a good many States being as low as 12 to 14 bushels per acre; this evidently does not pay the grower, and many are therefore giving up wheat, and going in more for other branches of farming. Much of the wheat-producing land in the east being thus, for a time at least, exhausted, supplies will have to come from the virgin soils of the west, and as these are rapidly undergoing the same process, the farmers of the United States will, before very many years, be very much on a level with the farmers of this country. The *virgin soils* of Canada are, however, much more extensive, and will probably be able to send us wheat when the United States have ceased to be an exporting country."

"Mr. Cowan from Wigtonshire, who visited the district west of the Portage, as far as Rapid City, describes that country in his report. Mr. McKeuzie, who came from Ontario eleven years ago, gave Mr. Cowan some useful information. He owns about 18,000 acres of land, selected very judiciously in various parts of the Province. One of his sons is on a farm of 1700 acres of the beautiful plain, and has 300 acres under crop. He has also a grazing farm, 60 miles north-west of the Portage, on which he says 800 acres would yield enough hay to winter 2000 cattle. He lives on a farm of 2400 acres, 9 miles west of Portage-la-Prairie, some of which he has cultivated for nine consecutive years. His wheat yielded 41 bushels per acre

IN 1877, 26 BUSHEL'S LAST YEAR, AND HE EXPECTS 40 BUSHEL'S FROM THIS YEAR'S CROP, ALL OF THE FIFE VARIETY, AND 60 TO 62 LBS. PER BUSHEL. He sows wheat from 15th April to 12th May, and reaps in August. Oats may be sown till 20th May, and barley as late as 10th June. Oats yield 75 to 80 bushels per acre, 34 to 36 lbs.; barley, 40 to 45 bushels, 50 to 52 lbs. He drills in about 2 bushels of each. His land is a good black loam, 18 inches deep, on a subsoil of 3 or 4 feet of loamy clay, and grows excellent crops of roots of all kinds. Potatoes, with very rude cultivation, grow 7 to 10 tons per acre, and turnips as high as 30 tons without manure. Swedes frequently weigh 16 to 20 lbs. One exhibited last year weighed 36 lbs. Good water is found at 16 feet, and stock do well. Mr. McKenzie has a stock of very useful well-bred cattle, the best in the Province. We have already noticed Manitoba, and may now confine our remarks to the older provinces. Of these Ontario and the Eastern Townships of Quebec impressed us very favourably. A Great deal of Western Ontario would compare very favourably with some parts of England. The land is good and fairly managed, there is a nice proportion of timber, and the farmers' houses are in many cases exceedingly neat and comfortable. They have, in fact, an air of refinement and prosperity beyond what we expected in a comparatively new country. We believe it would be hard to find in any country of similar size so many men who have done as well as Ontario farmers. Many who went out 30 to 40 years ago with nothing, now own farms and stock worth £2000 to £3000."

Mr. GEORGE COWAN, Delegate from Wigtownshire.

"As Mr. Mackenzie is quite a representative man in the North-West, I propose now to give you a brief history of his hitherto very successful career as a tiller of the soil.

Originally from Scotland, Mr. Mackenzie settled early in life in the Township of Guelph, Province of Ontario, where he remained for a period of a quarter of a century, and being highly skilled as an agriculturist, and particularly with respect to the rearing and management of stock, he was very successful in his farming pursuits, and eventually became the owner of a considerable portion of land. Mr. Mackenzie would probably have ended his days in peace in Ontario, but about eleven years ago, for the sake of his large and rising family of sons, he determined to see for himself the Great North-West, and find out whether the country was as fertile as it was reported to be. At the date already mentioned it was a much more difficult matter to reach Winnipeg (then a small town with only a few hundred inhabitants) than it is now, and Mr. Mackenzie had to buy a team of horses and Red River cart at St Paul's, in the state of Minnesota, to travel a distance of nearly 500 miles to the new province. He remained in the province about a year, and at last was so thoroughly satisfied with the richness of the soil, its capability to produce heavy grain crops with very little expense, and the great future that awaited the country, that he finally determined to return to Ontario, sell off his land, and migrate with his whole family to the new land of his adoption, and he informed me (what I could well believe) that he never since had reason to regret the decision he then arrived at."

"During the thunderstorm we took shelter at the farm house of Mr. Cook, where we were most hospitably received, and when there our host informed me that he had taken up his land about eighteen months previously. He liked the country very well, and although previous to the time of settling in Manitoba he had no knowledge of farming, yet he was getting on first-rate, as the land did not require very particular management, and he had no fear of his ultimate success."

* * *

"First in order comes Manitoba and the North-West, in which I spent the first few weeks of my visit to Canada. This immense tract of country, the extent of which seems boundless, has only become known to the outer world during, I may say, the last decade of years, and it is a matter of wonder that the fertility of its soil, and its capabilities as a wheat-growing country, should so long have remained unknown, seeing that it has been in possession of the Hudson Bay Company for upwards of 200 years. At present this great country, which is supposed to be capable of sustaining a population of upwards of 80,000,000 of people, is, comparatively speaking, almost unoccupied, although emigration from the older Provinces of the Dominion, AS WELL AS FROM THE AMERICAN STATES AND OUR OWN COUNTRY, is yearly increasing, and now that the country is being opened up by the formation of the Canada-Pacific Railway to the Rocky Mountains, and thence through British Columbia to the Pacific Ocean, as well as by other railways, there can be no doubt that the tide of emigration westwards will continue to go on in an increasing ratio year by year, and that in a very few years it will have a considerable population. During my short visit (and I was only able whilst there to travel over about 500 miles of its prairie lands, and my remarks, it must be borne in mind, are only strictly applicable to what I saw) I was very highly impressed with the fertility of the soil, some of it being without exception the richest I have ever seen, and I have little doubt it will continue for many years to produce excellent crops of grain without any manure, and with very little expense in cultivation; and I would say to any one blessed with health and strength, who is possessed of moderate means, and who is of sober and industrious habits, that in Manitoba or the North-West he would have no difficulty in realising a competency in a very short time, and in many cases, in a few years a fortune. For example, 160 acres of land is now being offered by the Canadian Government free on the condition of settlement, and 160 acres more at a price that would not amount to one year's rental of very moderate land in this country."

Mr. R. W. GORDON, Delegate from Annandale.

"I now come to the important question—Is Canada the place to emigrate to? and, if so, which of her Provinces is the most desirable? The first question I will answer in the affirmative, (1) because of its boundless extent of cheap and at the same time fertile lands; (2) because of its proximity to our own country, and therefore to the best market in the world; (3) because of the similarity of its people to ourselves; and (4) because of its loyal allegiance to the British Flag."

Mr. W. ELLIOT, Delegate from Galashiels.

"With regard to farmers emigrating to the Province of Ontario, or the Eastern Townships, Province of Quebec, I have not the slightest hesitation in recommending them to do so; as I am satisfied, from what I saw, that men with moderate capital could do better than they can at home; and that for several reasons."

Mr. JOHN LOGAN, Delegate from Berwickshire.

"Manitoba is a very healthy country, and has a very fertile soil. It is generally very dry in summer, and in winter the cold is no greater, and the snow seldom so deep, as in Ontario. Plenty of wood can be got at Winnipeg, and also at Rapid City, for building purposes. There are two saw mills being erected at present. The wood is sent down the Saskatchewan River from the White Mud River and White Lake, where plenty of timber is to be had. Coal has also been found ~~on~~ the Saskatchewan River in beds 2½ feet thick, and on the Pembina River 7 feet thick. In fact it abounds everywhere, so that there will be no lack of fuel. There is also a grist mill erecting at Rapid City. There was a great talk some time ago about the grasshoppers doing great damage to the wheat crop, but none have been seen for three or four years, and they don't expect to be annoyed again for years to come. In this I report only what was told me.

"Manitoba is very different from Ontario; there are no trees to hinder the plough, only prairie grass, and this must be ploughed down in June and July with a furrow 2 inches deep and 12 or 14 inches wide. It is found that the soil is rotted better in these months from the heat being so great. It is again ploughed over in the autumn or spring, and once yearly after, no manure being required. In fact, all the straw, which in Britain would be converted into manure, is burned. The taxes are light, and the Canadian Government reserve two sections in each township for educational purposes. Each section contains 640 acres and there are thirty-six sections in each township. My opinion is that this is the country for British farmers."

Mr. JOHN SNOW, Delegate from Midlothian.

"Mr. Snow, who was also received with applause, reported as follows (referring now and again to a map of the Dominion which hung on the wall:—The Delegates pushed through for Ottawa, where they had an interview with the Minister of Agriculture for Canada, the Hon. J. H. Pope. Nothing could be kinder than the reception they met with, and I give you his words as nearly as I can recollect them—Gentlemen—We have invited you to this country to see it for yourselves: we have no intention of saying to you we shall send you here, there, or anywhere; it is for you to say where you wish to go and there you shall be sent, and when you return tell your friends and neighbours exactly what you have seen. Tell them what is good about the country. I trust you will find nothing bad; but should you do so tell them that also."

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" Along the Red River and about Winnipeg the soil is very strong black vegetable mould, and I have no doubt most of it would carry paying crops of wheat for thirty years ; but it is very flat, and I must say that I like the country better west of Winnipeg, and the furthest point we reached, 150 miles west of Winnipeg, best of all. You have here the Little Saskatchewan River, with fine sloping ground on each side ; the soil and what it produced was good, as you will see from the samples of each I now show you. I also show you samples from other parts ; and the difference I saw betwixt the prairies in the States and Manitoba was, that in the first they seemed to be about a dead level, in the other you had a variety. You could get strong, level land, or gently rolling lighter land—land adapted for wheat-growing, land adapted for cattle-raising ; AND, AS I WILL SHOW YOU FURTHER ON, AMERICANS THEMSELVES ADMIT THAT WE HAVE GROUND BETTER ADAPTED FOR GROWING WHEAT AND RAISING CATTLE THAN THEY HAVE. "

" We saw that a black vegetable mould covered the surface from 18 inches to two, three, or four feet deep ; and its fertility, no doubt, arose from vegetable decay and from the fires which every year sweep over those lands, depositing fine ashes. What was produced we had to take from the evidence we could collect from the people, and from the stacks and stubble in the fields ; and I consider I keep safely within the mark when I say that, taking a good piece of land, it will produce, after being broken properly, 40 bushels the first year, and an average of 30 bushels for 30 years without manure. The land is also very easily broken. It is generally selected without trees, and is turned flat over in June and July with a breaking plough to the depth of two inches. In the fall it is again ploughed the same way, but taking another couple of inches. It is then sown with wheat in April, and in August they reap a heavy crop of wheat. Afterwards the land is very easily ploughed, a man with four mules or horses in a Sulky plough, taking two furrows, being expected to plough four or five acres per day. "

" I conclude by showing you what our American cousins think of this country. The first quotation is from the *Philadelphia Press* : "—

" THE GREATEST WHEAT-GROWING REGION IN THE WORLD IS NOW BEING OPENED TO SETTLEMENT. THE LARGEST AND MOST PRODUCTIVE PORTION LIES WITHIN THE BRITISH PROVINCE OF MANITOBA IN NORTH AMERICA. It is sufficiently prolific, when fairly cultivated, to make England independent of the United States for breadstuffs, and to create a powerful rivalry elsewhere. The extent of this enormous and rich British territory is comparatively unknown to the United States. It is estimated at 2,984,000 square miles, whilst the whole of the United States south of the international boundary contains 2,933,000. In the north-western prairies of Canada, wheat often produces 40 to 50 bushels an acre, while in South Minnesota 20 bushels is the average crop, in Wisconsin only 14, in Pennsylvania and Ohio, 15. Within five years it is calculated that 4,000,000 acres of this fertile prairie land will be under wheat cultivation. This means an addition to the wheat products of the world of 100,000,000 bushels, being the amount exported last year from America. It is evident that our superiority as a grain-growing country is likely to be seriously threatened by

the rich prairie lands of this North-Western British America, as it will make the mother country entirely independent of foreign supply.”

“The second is from a speech by the Hon. J. W. Taylor, United States Consul at Winnipeg, on Thursday, Oct. 2nd, 1879 :”—

“After some remarks concerning the cotton and corn (Indian) growing sections of America, he goes on to say, ‘There remained the Northern Zone especially adapted to wheat growing and cattle raising. That included Canada, Wisconsin, Michigan, and partly Minnesota, but three fourths of the great wheat-producing belt of the Continent lay north of the boundary line of the United States. THERE THE FUTURE BREAD SUPPLY OF AMERICA, AND THE OLD WORLD, TOO, WOULD BE RAISED. THE BEEF RAISED IN THIS NORTHERN DISTRICT WAS FOUND SUPERIOR TO THAT PRODUCED FARTHER SOUTH.’”

In a pamphlet by W. B. Close, recommending Iowa to settlers, I find the following :—

“‘I have reports from several of my farms stating the yield of wheat this year has fallen very little short of 30 bushels to the acre. Still, owing to its occasionally suffering from blight, IT IS NOT AS CERTAIN A CROP AS IN MANITOBA.’”

“Mr. Close, who had lands to sell in Iowa, might have added that the buffalo goes from the plains of the North-Western States and Territories into those of Manitoba and the Canadian North-West to winter on account of the more luxurious herbage, the lighter fall of snow, and the fact that, owing to the equable temperature which prevents the crusting of the snow, a result which follows alternate thaws and frosts, and renders it more difficult, and often impossible for cattle to reach the grass beneath.”

“These facts should be borne in mind by intending emigrants to North America, who are now being plied with all kinds of objections to the climate of the Dominion by interested agents of the various land and railway companies of Minnesota, Nebraska, Dakota, Iowa, Texas, &c.”

Mr. WILLIAM RIDDELL (ex-President of the Scottish Chamber of Agriculture), Hundalee, in response to a call from the chair, said—“I have received many queries from England, Scotland, and even Ireland, regarding the position and prospects of farmers in the Province of Manitoba, and it will give me pleasure to communicate to this meeting what information I have been able to glean upon this interesting subject. Reference has been made to my sons, Andrew and James, now in the Canadian North-West. In the first place I may state that they have been located in Manitoba since the spring of 1877. Having purchased a quantity of land in the summer of 1876, with a view to settling upon it, they commenced in May, 1877, to plough a bit of the prairie. They sowed wheat, barley and oats, the seed of which they carried with them from this country. The produce of said crop (1877)—very unlike the crops in this country—yielded well; they also planted potatoes and other vegetables with success, and are now pursuing a mixed course of husbandry, having a little of everything—wheat, barley, oats, potatoes, turnips, &c., sheep, cattle, horses, and of course, pigs. Having as I have already said, been applied to by numerous parties to furnish information derived from my sons’

experience and prospects in Manitoba, I put a number of questions with the view in the first instance of getting information for myself, and in the second place in order to be able to give a correct and satisfactory reply to the parties desiring information regarding Manitoba. The following are the answers to my questions :—We have never regretted coming here. Land can be purchased at from 1 to 10 dollars per acre, and its transfer is so simple that in a few minutes, and at almost no cost, any quantity can be transferred—(applause). Prairie land is easily broken up, and is turned over in June or July with as light a furrow as possible, turned back with an inch of fresh mould before winter, but sometimes left till spring, when every description of cereals can be sown. Every description of crop succeeds well here, wheat yielding from 30 to 40 bushels, barley 45, and oats 55 per acre. Turnips, carrots, and cabbages grow as heavy crops as the best in Scotland—(applause). Land is rising in value rapidly, and labour can be had at from 15 to 20 dollars a month, with rations. Timber is much needed, but when buildings and fences are well up, less will be required. In some localities it is very scarce, in other districts plentiful, and consists of oak, ash, elm, poplar, and birch. Grain crops must all be fenced; but a law comes into operation next year (1880) to have all cattle pastures also fenced. A large herd of cattle could be kept, and if sheltered by woods and windbreaks, they might stand out nearly the whole season. Grass would scarcely give the finishing touch to feeding cattle but a little crushed grain in addition would do it nicely. Winnipeg market is available for buying and selling, but the local demand at present is very good. Railway communication with the outer world is increasing daily, and this will be the means of levelling both up and down. That is to say, it will equalise prices. Bullocks seem to be the best adapted for labouring the land, especially in the breaking up, being more easily maintained than horses, and less capital is required to put them on. The climate is very healthy; we heard of no disease prevalent in the country. The only tax is for educational purposes. Churches are supported by missions from Ontario and by voluntary contributions. Not such a thing as State aid. THE CLASSES MOST REQUIRED HERE ARE FARMERS WITH CAPITAL, FARM AND RAILWAY LABOURERS AND DOMESTIC SERVANTS. At first we did not know how we were likely to succeed; BUT NOW WE ARE IN A POSITION, FROM OUR EXPERIENCE AND OBSERVATION, TO ADVISE ANY PLUCKY, INDUSTRIOUS MAN, WITH FROM £500 TO £1,000, TO COME OUT HERE. The best time for farmers to come is in September or October. If these months are not convenient, the end of March or April; the former time would enable a settler to select his location, purchase stock, and get ready to make an early start for next year's crop. A farmer's outfit should consist of trained yoke oxen, which may be bought at 125 dollars a pair and upwards; cows 35 dollars and upwards. Steel ploughs are the best and cost from 25 to 30 dollars. Like all new countries, everything is very primitive compared with Scotland. We have many discomforts and inconveniences, with hard work in seed, hay and harvest time; but notwithstanding all this, we have a very large amount of compensation. The land is our own; we can farm as we like, sell what suits us best—either the land or its produce—hunt or sport without hindrance, neither law nor contract preventing. (Applause.) All this sweetens labour very much, however. All who may think of coming here ought to make up their minds

to rough it for a time ; but with capital, patience, pluck and perseverance no man need be afraid of making a good thing of it. (Applause.). With no rents and almost no taxes, we have the prospect of doing much better here than in the old country. These are the answers to questions which I put to my sons from time to time during the last eighteen months. You will observe, therefore, that they have not been got up for this occasion. (Hear, hear.) Now I don't mean to talk politics ; but I cannot help thinking from what we have heard stated by the delegates who have just returned from Canada on a tour of inspection, that there are several grave and important questions which might engage the attention of landlords and farmers in this country with a view of effecting a change for the better in regard to the relationship subsisting between them. (Hear, hear.) For example the cultivator of Canadian land has the advantage of us in this country, being almost universally the owner, and is therefore in a position to make the most of everything the land produces. (Hear, hear.) Even the land can be sold and transferred as cheaply and easily as its produce, or nearly so. Well, owners of land in this country must be very blind if they cannot see what an advantage it would be to them if they could dispose of their land as easily as the Canadians, more especially when any pressure for money arises. (Hear, hear.) Another lesson landlords might learn is that when they let their land, farmers ought to be in a position to make the most of their farms. (Applause.) This can only be done by placing them as nearly as possible in the position of owners, that is, with few or no restrictions as to cropping, full liberty to dispose of produce, no game reservations, compensation for unexhausted improvements on the one hand, payment for dilapidations on the other hand, no lease, twelve months notice on either side to quit, &c. (Applause.) Farmers may also learn much from what has been said—first, that there are millions of acres of land in Canada of the finest quality, and within a few day's journey from this country, and which can be purchased for less per acre than the yearly rent of land here—in a healthy climate and under the same government as our own—(applause)—and where at least all the necessities and many of the luxuries and comforts of this life are fully insured. Those of us who may be disposed or compelled to stay in this country ought to set about earnestly and unitedly to get themselves unfettered, and that, I venture to say, can only be done by sending men to Parliament whose interests are identical with our own." (Applause.)

Mr. GEORGE HUTCHINSON, Delegate from the Penrith Farmers Club.

"Judging of the Canadian climate from what I saw of it during the two months I was there, I may safely say that it was delightful after being used to the wet weather and damp atmosphere of England. From information I received from those who had resided in the country some years, the winter is colder than in England, but the cold is accompanied by a much drier and brighter atmosphere, which causes a less disagreeable feeling of cold than a warmer temperature accompanied by dampness."

"The summers are warmer here than in England, in proof of which, in some of the more favoured districts, such as Niagara and other parts of South Ontario, grapes come to perfection in the open air. I also saw some equally as fine near to Ottawa, 180 miles further north. When we were returning from viewing the Falls of Niagara, at the station we saw 137 baskets of fine ripe grapes which had been grown in the district; with such facts as these let it not be said that Canada is a wilderness of ice and snow."

"Near to the Portage-la-Prairie, about 60 miles west of Winnipeg, I saw a field which had grown 30 crops of wheat in succession without any manure, the last crop having yielded 35 bushels per acre; the owner was ploughing this field for the thirty-first time, and still did not consider it necessary to plough more than five inches deep, although he had quite two feet of soil to work upon."

"During a visit of only two months to such an immense country as Canada, you cannot expect anyone to acquire a perfect insight into the prosperity of the people. As far as I observed things appear to be going on pretty smoothly with the farmers there. One farmer who when a boy had worked at some of the farms in this neighbourhood, and went to Canada 27 years ago, now owns a well cleared farm of 200 acres, worth at this time £1500. This is not a solitary case; THERE ARE HUNDREDS OF FARMERS IN CANADA WHO COMMENCED WITH NOTHING AND NOW OWN GOOD FARMS OF THEIR OWN. Above all an emigrant should have good health, and none should go who have not made up their minds to work; the idle had better stop way."

Mr. ROBERT PEAT, Delegate from Silloth.

"SOIL.—Contrary to my expectations instead of finding a wet swamp, as I pictured in my own mind, I found a deep black loamy soil, varying in depth from 2½ feet to 3½ feet; and in some places where it has been cut through on the banks of some rivers, it has been found to the depth of 10 to 12 feet, and is especially adapted for the growing of wheat, being preferred by the millers to almost any other on account of its being so dry and thin skinned. It has been known to grow wheat for many years in succession, without manure. If the report was correct the soil I have sent down to you has grown wheat for 20 years, and the last crop yielded 35 bushels per acre. When first put into the box it was as black as my coat; he was ploughing it again when I saw him, for the next spring crop, and giving no manure, with a pair of very poor horses, but said he could easily plough two acres per day. No doubt that a good many of you, like myself, will ask the question—but how long will it last—that is a question that is left for the future, but there is one thing certain, that no manure is required at present. One of my friends who was along with

me for some time, travelling across a field of 180 acres, came to a place where the wheat had gone down, and on making enquiries, he was told it was where some few of his cattle had got a little straw. Some people attribute the richness of the soil to the droppings from birds and animals, and the constant accumulation of ashes from the prairie fires. During my tour, I met a gentleman who had travelled all over the world, and he said he had seen no land more fertile than that at High Bluff. I have travelled over that country from Portage-la-Prairie to the Pembina Mountains, and so little difference is there in the soil, that any one but a minute observer would fail to make much distinction, except near Morris where there is a good deal more soil. My friends who went further west from Portage-la-Prairie to the Saskatchewan Valley, on their return reported the land much of the same nature, but thought it would not stand cropping so well as some to which I have alluded—High Bluff."

Mr. GEORGE WILKEN, Delegate from Aberdeenshire.

I.—"REGARDING ONTARIO.—Anyone will have noticed who has followed me thus far, that I was travelling here in my own way, mostly getting my information from farmers to whom I had introductions, most of whom or their forefathers had gone from the northern part of this country. As I said in my introduction I say again, I do not intend to advise anyone *pro* or *con*. I have simply reduced to writing in a rough way what I saw. I will say, any one going there will know little difference from home. I am sure he would not know so much difference as he would by moving into a neighbouring county at home, and would find a heartier welcome; he would find himself surrounded by his own race be he English, Scotch or Irish; find churches of his own denomination and plenty of them; find as good ordinary schools as at home without even school fees to pay; find life and property as safe and himself nearly governed by the same laws as at home, the principal difference being that each province manages its own local affairs, and last, and not least, he can farm his own land with about the same capital as he can stock a farm at home. I have put the average price of good cleared farms in Ontario at £10 per acre, but any quantity of partially cleared land can be had from £2 to £8, according to the houses and the quantity cleared. The cost of going to Ontario is—by Allan Line of Mail Steamers to Quebec and rail to Toronto—steerage £7 10s.; intermediate £9 10s., with 10 cubic feet for luggage free; saloon, from £14 10s., with 20 cubic feet free. The rates for household goods are 42s. 6d. per ton of 40 cubic feet. Travelling in Canada costs much the same as at home. Hotel bills are less. A day's bill at the best hotels averages 10s. to 12s. a day for four meals and a bed, and there is no tipping to do as at home. Board in hotels can be had by the week from \$7 up, and in private houses at any price you please. The farmers keep less stock than at home and grow more crop, and, as they make their own estate regulations, they can sell or grow what suits them best. There is cleared land to be got on lease, the only rent I heard of was 12s. an acre, and rented land seemed to be all the same price whether good or bad. Mr. Brown's taxes in Waterloo County (previously referred to) never exceed \$33 for 160 acres. The climate is hotter in summer and colder in winter than here; I heard none complain of the frost, as it is steady with a pure atmosphere."

II.—“REGARDING MANITOBA.—Here also any one from this country will find a few of his countrymen, even Aberdonians. He will find a good difference from home, and must be prepared to rough it for a start. He will not find the many running burnies as at home. In short he will have the carving out of his own fortune in a new land. The materials are there to his hand, and the Government present him on entry his choice of 160 acres of as good land as the world affords. A hard working man with a growing family might face and get over the difficulties of a pioneer's start, landing with a hundred pounds in his pocket, many have done it with nothing; with five hundred he would soon be independent. A man with means can buy as many sections as he pleases from one to five dollars an acre, and can invest his spare cash safely at from 10 to 12 per cent., at any rate on a first mortgage over houses and land taken at one-half their value; and I do not think a safer investment could be found than lending 2s. an acre on land, and that only when a man has settled upon it, built a house, and broke up so much. I have good authority for stating that a farmer can easily afford to pay 13 per cent. interest for money rather than allow his land to be comparatively waste. That it is a country with a great future before it I have no doubt, and I also believe it will be settled up with a rapidity unknown even in the United States. That thirty thousand emigrants and their families went into it last year there is no doubt, and that possibly double that number will go in this year I believe there is less doubt.

That it is pretty hot in summer, with some mosquitoes for a few weeks, there is no doubt; that it is pretty cold in winter there is also no doubt. I can only speak of the thermometer at zero, which we had for a few days, and can say I did not feel nearly so cold as I have done since I came home with the thermometer at 26 degrees, the air was so pure and still and the sun so bright.

Mr. JAMES BRUCE, Delegate from Aberdeenshire.

“I will now say something of the winter season as I experienced it up to the 24th January; and regarding it I find the greatest misapprehension prevails on this side respecting its severity. However, much snow and frost are objectionable in some countries, they are certainly no drawback to Canada, but necessary, as the snow affords protection to the fall wheat, and the frost assists greatly to pulverise the soil. The decided character of the winter makes it more pleasant and enjoyable, and besides being pleasant, there is no healthier climate under the sun. Although the thermometer sometimes registers a low temperature, and the weather is cold, still, owing to the dry atmosphere, it is bracing and pleasant.”

Mr. JOHN MAXWELL, Carlisle.

“MUCH OF THE MISERY AND DISSAPPOINTMENT SO MANY EMIGRANTS HAVE MET WITH IN THE UNITED STATES HAVE BEEN OWING TO THEIR TOO READILY ACCEPTING THE ADVICE OF THE AGENTS OF LAND AND RAILWAY COMPANIES, WHOSE SOLE INTEREST IS TO HAVE THEIR EXTENSIVE HOLDINGS SETTLED AT WHATEVER COST. Beautiful pictures are deftly painted of the prospects of

the settlers on their respective lands, each succeeding report being more brightly coloured than its predecessor. If these men or the companies they represent kept faith with their clients (I had almost said victims), little if any fault could be found with them, and much human misery averted, but too often they are left to their own resources, strangers in a strange land, to live lives of trouble and regret.

"I was glad to note that the information of their country, issued by the Canadian Government for the information of emigrants, is not written in the exaggerated tone which many of the neighbouring States adopt. The Dominion Government hold most of the lands of the North-West in their own hands. There is a vast tract to select from, and a most secure title ensured when the transfer is once made."

Mr. HUNT CHAMBRE, J. P. Stewartstown. County Tyrone.

AS A WHEAT GROWING DISTRICT, I WOULD NOT COMPARE WHAT I SAW OF DAKOTA OR MINNESOTA, IN THE UNITED STATES, WITH MANITOBA. THE RICH BLACK SOIL OF THE LATTER BEING MUCH DEEPER AND THE SUB-SOIL MUCH BETTER WILL CONSEQUENTLY STAND MUCH MORE CROPPING. AT PRESENT THE YIELD IS GREATER BY FROM TEN TO TWELVE BUSHELS PER ACRE. IN ADDITION TO THIS, WHEN WE TAKE INTO CONSIDERATION THAT AS SOON AS THE NEW-RAILWAY IS OPENED THE COST OF DELIVERY ON BOARD THE OCEAN STEAMERS WILL BE ACTUALLY LESS, THE SUPERIORITY OF MANITOBA IS VERY GREAT. INDEED FROM ALL I COULD LEARN I HAVE NO DOUBT MANITOBA AND THE CANADIAN NORTH-WEST ARE BOUND VERY SERIOUSLY TO AFFECT THE WHEAT-GROWING DISTRICTS OF THE UNITED STATES WHOSE AVERAGE YIELD IS NOT MUCH MORE THAN HALF THAT OF MANITOBA."

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"On our return journey we stopped to see some of the Minnesota and Dakota prairies, and went to see one of the celebrated Dalrymple farms, where 8,000 acres of wheat were grown this year, and 100 acres of other grain crops for feeding the horses. We were most kindly and hospitably received by the manager, Mr. Button, and shown all that was to be seen. Everything was conducted on the most systematic style possible, all the implements were of the most improved description, and these were stored in the best possible order when not in use. I saw 14 double-furrow Sulky ploughs at work, following each other in one field a mile long, each plough drawn by four horses or mules, and the whole turning over about 70 acres per day about six inches deep. THIS WAS THE DEEPEST AND BEST PLOUGHING I SAW, BUT THE SOIL WAS NOT TO BE COMPARED WITH THAT OF MANITOBA. THIS YEAR'S AVERAGE YIELD OF WHEAT WAS ONLY 19 BUSHELS PER ACRE, AND THE AVERAGE OF THE LAST FOUR YEARS ONLY 23 BUSHELS. THE SAMPLE OF WHEAT I SAW WAS ALSO VERY POOR, ALTOGETHER CONFIRMING MY OPINION THAT THESE PRAIRIES WERE NOT NEARLY SO GOOD AS THOSE OF MANITOBA."



CANADA GOVERNMENT AGENTS.

IN THE UNITED KINGDOM.

CHIEF OFFICE: 10, VICTORIA CHAMBERS, LONDON, S. W.,
MR. J. COLMER, Secretary.

LIVERPOOL..... JOHN DYKE, 15, Water Street, Liverpool.
CARLISLE..... THOMAS GRAHAM, 20, Chiswick Street, Carlisle.
BELFAST..... CHARLES FOR, 29, Victoria Place, Belfast.
DUBLIN..... THOMAS CONNOLLY, Northumberland House, Dublin.

From whom the fullest information respecting all parts of the Dominion and its resources—lands, industries, &c., &c.,—together with Pamphlets including the complete Reports of the Tenant Farmers' Delegates, may be obtained, free of charge.

IN CANADA.

OTTAWA..... W. J. WILLS, St. Lawrence and Ottawa Railway Station,
Ottawa, Ontario.
TORONTO..... J. A. DONALDSON, Strachan Avenue, Toronto, Ontario.
MONTREAL..... J. J. DALEY, Montreal, Province of Quebec.
KINGSTON..... R. MACPHERSON, William Street, Kingston.
HAMILTON..... JOHN SMITH, Great Western Railway Station, Hamilton,
LONDON..... A. G. SMYTH, London, Ontario.
HALIFAX..... E. CLAY, Halifax, Nova Scotia.
ST. JOHN..... S. GARDNER, St. John, New Brunswick.
QUEBEC..... L. STAFFORD, Point Levis, Quebec.
WINNIPEG..... W. HESPELER, Winnipeg, Manitoba.
DUFFERIN..... J. E. TETU, Dufferin, Manitoba.
DULUTH..... MR. W. C. B. GRAHAM. (This office is in Minnesota,
U. S., at head of Lake Superior.)

These Officers will afford the fullest advice and protection. They should be immediately applied to on arrival. All complaints should be addressed to them. They will also furnish information as to Lands open for settlement in their respective Provinces and Districts, Farms for Sale, demand for employment, rates of wages, routes of travel, distances, expenses of conveyance; and will receive and forward letters and remittances for Settlers, &c., &c.

OPINIONS OF PUBLIC MEN

AND OF

THE PRESS ON CANADA.

PROFESSOR JAMES CAIRD writing to the *Times* on May 12, 1880, said :—
“ Within ten years it is expected that the Canada Pacific Railway will be completed, and will tap the ‘fertile belt’ by that or by a shorter route, open for at least three months of the year, from Port Nelson by Hudson’s Bay. Whatever may be the result on the value of land in this country, nothing, in my opinion, can stop the inevitable outflow to it of a large proportion of our agricultural strength. A territory of great fertility, better adapted for the growth of wheat than the United States, healthy and entirely suited to the British people, within a short and pleasant passage of a fortnight, will open to the farmer and labourer of these kingdoms prospects which they do not yet fully realise. Many difficult social problems gradually growing into prominence will here find a natural solvent. Workers of every class in the old country, who have been growing uneasy and discontented with the difficulty of supporting their families, may there plant themselves on a homestead where no preliminary clearance of forest, as in the older settlements in Canada, is required, but on which with little labour, and that of the simplest kind, they can in the first season extract from the rich soil abundance of food. The movement has begun; labourers and farmers’ sons, carrying some capital with them, are preparing to go.”

Commenting upon this letter the *Times* said :—“ Whatever may be thought of our domestic prospects, it is some satisfaction to know that the competition with which we are menaced is in great measure to be found within our own dominions, and that the British Empire, at the worst, is likely to be able to feed itself.”

THOMAS B. POTTER, Esq., M.P.

Writing to the *Daily News* from Ontario, September 20, 1879, said of that portion of Canada, “ I had no conception of the richness of the soil, or of the climate in which peaches ripen on Standard trees, and there is every evidence of a thriving and well-to-do and progressive people.

The farmer will find an admirable system of education almost free of cost, and many advantages to make up for what he leaves behind, and he will buy the land he tills for very few years' rental in England.

CLARE SEWELL READ, Esq., M.P.

We observe Messrs. C. S. READ, Esq., M.P., and ALBERT PEEL, Esq., M.P., the Assistant Commissioners, were present at the Ontario Exhibition on the 17th of September, and inspected the stock. They also visited the Model Farm at Guelph, and were accompanied by the Hon. OLIVER MOWAT, Hon. Mr. WOOD, and Hon. Mr. CROOKS. Messrs. READ and PEEL were shown round the buildings and farm by Mr. JOHNSTONE, the President, and Mr. BROWN, Professor of Agriculture, and seemed much pleased with their visit. After spending three or four hours at the Exhibition, they returned to Toronto. At the banquet which took place in the evening, Messrs. PEEL and READ spoke, the LATTER ASSURING THE COMPANY THAT THE POSITION OF THE CANADIAN FARMER WAS FAR PREFERABLE TO THAT OF THE ENGLISH FARMER.—*The Live Stock Journal*, Oct. 3, 1879.

Mr. THOMAS BRASSEY, M.P., Civil Lord of the Admiralty, in the course of an address delivered before the Bradford Chamber of Commerce, in January last, on our Colonial Empire, quoted the following important and suggestive figures :—"Whilst our exports to foreign countries had risen from £141,000,000 in 1869 to £195,000,000 in 1872, and fallen again to £126,000,000 in 1878, our Colonial trade had steadily gone on increasing from £48,000,000 to £66,000,000 in the same period, having now risen to more than one half of our total commerce." A table prepared by Mr. FREDERICK YOUNG, shows that the annual consumption of British productions per head of the populations, amounts in the United States to only 7s. whilst in the Dominion of Canada it amounts to £2 2s. 9d., THUS PROVING THAT IT IS TO THE ADVANTAGE OF THOSE WHO REMAIN IN ENGLAND, THAT BRITISH EMIGRANTS SHOULD SETTLE IN THE DOMINION RATHER THAN UNDER THE "STARS AND STRIPES."

THE MARQUIS OF LORNE ON CANADA AS A FIELD FOR SETTLEMENT.

"The Marquis of Lorne made a farewell address to his late constituents in Inverary, recently, in which after referring to home politics, he said that we should judge the wishes of the colonies not from our point of view, but from that of their interests, and also from that of the well-being of the whole empire. He then spoke at length on the importance of Canada as a field for the settlement of agriculturists and others similarly employed, and the rapidity with which the country is being opened and cultivated. Plenty of men would do well if they could hold a plough and follow the gallant example of their countrymen who had done glory to the old land in forming another great British nation. The settlers in the agricultural regions of Western Canada are likely to live longer and be happier than was the lot of the great majority of mankind."

EARL OF DUFFERIN.

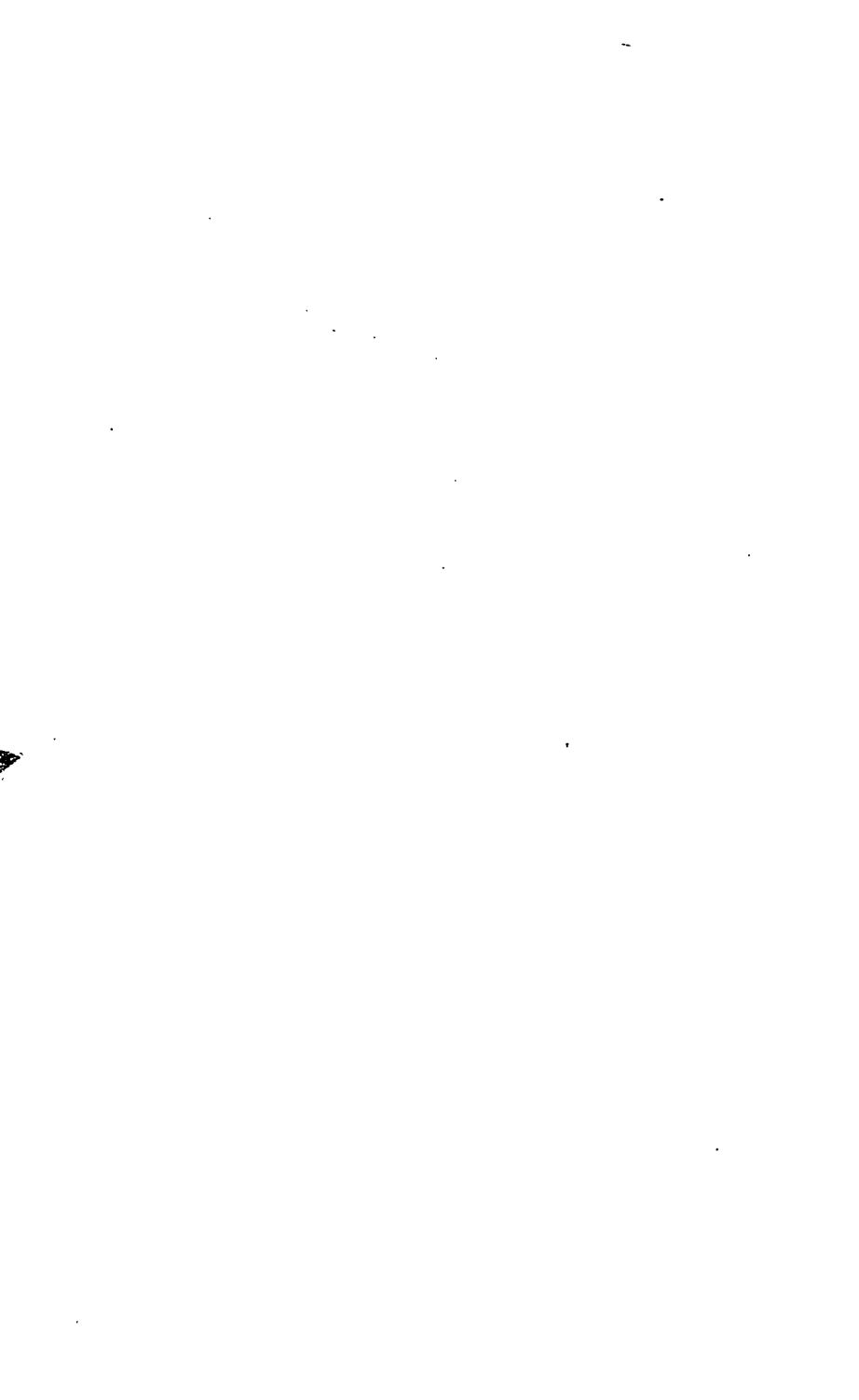
"Wherever I have gone, I have found numberless persons who came to Canada without anything, and have since risen to competence and wealth. I have met no one who did not gladly acknowledge himself better off than on his first arrival; and amongst thousands of persons with whom I have been brought in contact, no matter what their race or nationality, none seemed ever to regret that they had come here."

THE DUKE OF MANCHESTER.

"I spoke to several inhabitants of *Muskoka Free Grant District*, and they seemed successful. They certainly had to work hard at first; but in a few years—*four or five*—they were independent. *A farmer with a few hundred pounds can buy a farm in good working order in the o'der districts.* Capitalists can get at least 8 per cent. for their money."

PROFESSOR GOLDWIN SMITH, M.A.

"I have found Canada a very happy and pleasant country to live in. I don't think I can be deceived in saying *the farmers of Canada are a prosperous race.*"



THE PRESS ON CANADA.

(*The Times.*)

"Those who have tried Canadian winters, tell us no more than the truth when they say that the variations of the English climate are more to be dreaded than the equable lowness of temperature in the Dominion."

Speaking of the Marquis of Lorne's proposed tour through Manitoba and the North-West Territory during the present summer, *The Times* (June 21, 1881), says:—"His travels will be watched with interest, by the public which scarcely as yet, understands the magnificence of its estate in the regions of Lake Winnipeg and the Saskatchewan..... The country through which he will pass is already beginning to show signs of the destiny in prospect for it. Where there were formerly only hunters and trappers, he will perceive a line, though as yet very thin, of husbandmen reaping an ample reward from the virgin soil..... Of its (Canadian Pacific Railway) value politically, and as a means of developing the potential wealth of the Dominion, there can be no question. Settlers cannot help but follow in its course. Land such as it will open up, the vegetable accretion of thousands of years, is better than lodes of gold or silver; it is a corn mine which will outlast and outbid all the mines of Nevada and California."

(*Extract from Leading Article in "Times," London, Oct. 24, 1879.*)

It is unquestionable that the facility for acquiring land in the United States has been the main reason why our agriculturists have gone thither. The same reason will continue to be potential in the cases of any who may now think of improving their condition by a change of country and of nationality. Liberal though the provisions of the United States' Homestead Act are, yet they involve on the part of our countrymen who profit by them a renunciation of their birthright as citizens of the British Empire. This is a sacrifice even more keenly felt by most of them than severance from the place of their birth, and beginning life anew in a strange land. This consideration has induced many emigrants to prefer the long voyage to New Zealand or one of the Australian Colonies to the far shorter trip across the Atlantic. The Dominion of Canada has always invited immigrants but till recently that splendid country had nothing to offer which could rival the prairie State of the Far West. All this is changed, however, and the emigrant can now find in Canada as great inducements to settle there as in Minnesota, or any other State in the Union can offer. The Canadians, if more scrupulous, are less energetic in advertising their country than the citizens of the North American Republic. Contemporaneous with Minnesota is the Province of Manitoba.

The area of Manitoba is but small in comparison with that of some Western States; yet it is twice as large as Massachusetts, and it can support many millions of people, and furnish a large surplus of grain for exportation. Yet Manitoba is but a single province in a territory which is open and ready for settlement—a territory covering 880,000 square miles, exceeding in extent France and Germany combined, and equal in fertility to any corresponding tract on the globe. In the Canadian North-West there is a Homestead Act under which the settler is treated still more generously than in the United States. He pays but \$10 for his title to the 160 acres which are granted to him on condition that he resides there three years, and he can obtain another piece of equal area on paying \$1 an acre. At the period of obtaining the land absolutely, he must be a British subject by birth or naturalization; this provision is one which give the immigrants from the old country no concern. We do not advocate any measure of wholesale emigration, because we entertain the confident expectation that brighter days are in store for the suffering agriculturists in this country. The present crisis will pass away as other times of trial have done, and will leave behind it some profitable, if better and trying, lessons. Yet our fellow-countrymen, who are discontented with their lot—who have a practical knowledge of farming—who possess a little capital, and who are resolved to emigrate—will do well to inquire whether the prairie lands of Canada are not superior in some respects to those of the United States." Since this was written the Province has been enlarged, and is now several times larger than when first constituted.

(London Globe, 26th November 1879.)

"We should think that British farmers who may have made up their minds to leave the old country, cannot reasonably hesitate when the choice is between Canada and such a State as Texas. Things may not be so bad in the latter as some people allege; but there is no comparison between it and Canada in respect of order and civilisation. In Canada, even so far off as Manitoba, society is settled and law abiding; and the advantages of being under British rule and institutions ought to be appreciated by British subjects."

(Daily News.)

"It is astonishing to see the ignorance of the Englishmen generally respecting the true character and resources of this splendid colony. In each of the farms is a mine of wealth, and it only needs strong arms and clear heads to develop it."

(Morning Advertiser.)

"It certainly is pleasing to reflect that thousands of families have found independence, if not comparative wealth, in our Canadian possessions, who, had they remained at home, might still find difficulty in procuring the means of living. A large and still augmenting class of farmers have here attained to competence and ease."

(*Daily Telegraph*, 1st December, 1876.)

"We believe that, as a rule, the probabilities of emigrants getting on are in favour of British Colonies..... The immense reach of fertile and unoccupied land awaiting the plough, between Red River and the Rocky Mountains, ought to be sufficiently inviting to all Welsh as well as English subjects seeking a home abroad."

(*Newcastle Daily Chronicle*, 4th Sept., 1879.)

Amidst the multiplicity of fields of emigration, it may be doubted if Canada has always had justice done it. A variety of circumstances, social and political, has contributed to this result. But, as knowledge grows, prejudice disappears. There are few men so capable of giving an impartial opinion on the subject as the Hon. DAVID A. WELLS. His connection with the United States Government, and his enlightened views on international questions, render him an authority on the comparative merits of States to whom England and America may almost equally defer. It is thus that Mr. Wells writes in the *North American Review* of the Dominion territory:—"North of Lakes Erie and Ontario and the River St. Lawrence, east of Lake Huron, south of the 45th parallel, and included mainly within the present Dominion Province of Ontario, there is a fair country as exists on the North American continent, nearly as large as Pennsylvania, New-York, and Ohio combined, and equal if not superior to these States, in its agricultural capacity. It is the natural habitation on this continent of the combing wool sheep, without a full, cheap, and reliable supply of the wool of which species, our great worsted manufacturing interests cannot prosper, or, we should rather say, exist. It is the land where grows the finest barley, which the brewing interest of the United States must have if it ever expects to rival Great Britain in its present annual export of over \$11,000,000 of malt products. It raises and grazes the finest of cattle with qualities especially desirable to make good the deterioration of stock in other sections; and its climatic conditions, created by an almost encirclement of the great lakes, especially fit it to grow men. Such a country is one of the greatest gifts of Providence to the human race; better than Bonanzas of silver or rivers whose sands contain gold."

(*The Belfast New Letter*, 5th June, 1880.)

Sir A. T. Galt, High Commissioner for the Dominion of Canada in Europe, has been telling the people of England something of the progress of the Dominion. Within the last thirteen years six whole provinces had been united, and one new province had been created, so that all British North America is now one, and one Government is responsible to the Crown for the administration of that great trust. The debt has increased, but the revenue has increased from £3,000,000 to nearly £5,000,000, and the debt was incurred by useful works for the development of the colony. There had been £4,000,000 spent on the Intercolonial Railway, which is a most useful work. On canals £3,000,000 had been spent, and it was expected that vessels of 1000 tons would load at Chicago and bring down their cargoes on Lake Ontario. In the North-

West £5,000,000 was expended on the Pacific Railway, and in opening up that territory. The Government had taken the North-West, and introduced order there; they had established representative institutions in Manitoba; they would shortly extend such institutions further to the westward; they had introduced Sir A. Galt says, the best municipal system in the world; and they are giving the people free education for their children. With respect to emigration, in fifteen years, out of 2,000,000 who had left England and Ireland, only 250,000 had settled in Canada, the remainder having gone to the United States. Now, this is a mistake. People who choose to emigrate from the United Kingdom would be better provided for in Canada or some other British colony, and they would still be subjects of the British Crown, enjoying the fullest measure of self-government, with the assurance of British help to protect them in the exercise of their rights.

(North British Agriculturist, June 8, 1881.)

INCREASE OF POPULATION IN MANITOBA.—A correspondent, writing from Winnipeg on 8th May last, says:—People are coming into this country in great numbers, not only from Ontario, but from the Western States; they do not all come by way of Winnipeg, but are crossing the boundary line at all points, and are flocking to the line of the railroad. The railroad line is definitely located to cross the Assiniboine river at Grand Valley, about eighty miles this side of Ellice; and the first boat, which left about a week ago, took a very large number of emigrants, who before the boat reached the shore jumped into the water, one on top of the other, in their haste to lay out their claims where they thought the new town would spring up. Such a scene has not been seen since St. Paul was first started. The way property is going up in this city (Winnipeg) is perfectly wonderful. The Canadian Pacific Railway are doing their work well, and are giving great satisfaction by the energetic manner in which they are pushing their railway forward.

(North Wilts Herald, 23th May, 1881.)

EMIGRATION TO CANADA.—Our nearest and largest colony is evidently making rapid strides in the development of her resources, and is attracting a large emigration of the class required to bring her vast extent of fertile but uninhabited lands into cultivation, viz., farmers with capital, and it is certain that mechanics and labourers will follow in the right proportions. The credit of the colony is good, the public debt is not high, trade is improving, and the construction of the great Pacific Railway will give her an impetus such as she has not known before. Many people are deterred by the erroneous impressions that prevail about the climate. Those who ought to know say that while the winter is cold it is certainly not disagreeable, and that it is not prejudicial to agricultural operations. One thing is beyond doubt, that Minnesota, Dakota, and Iowa had a far more severe winter last year than Manitoba has experienced, and in the latter province there have been no serious floods, such as have unfortunately occurred in the Western States, and which have caused much distress and suffering among the settlers.

(*Monmouth Beacon*, 23th May, 1881.)

If Canada is not getting so large a number of emigrants as the United States, she is certainly securing a very fair share, and of the best quality, viz., English, Irish, Scotch, and Welsh farmers with capital, who are making for the fertile prairies of Manitoba and the North-West Territory, so soon to be opened up by a great railway system. No doubt this has been brought about by the publication of the Reports of the Farmers' Delegates (who visited that country in 1879 and 1880) which have been published and distributed by the Canadian Government. It is estimated that about 17,000 emigrants settled in the provinces in question last year, including many from the United States, and it is expected that quite as many if not more will find their way there this year. It is certainly preferable that, if emigration must take place, it should make its way to our Colonies, where the settler remains a British subject, and where the advantages are equal to those offered by any foreign country.

(*Extract from the Letter of "Cariboo" in the Field*, 3rd April, 1881.)

Looking at the map of the North-West territory of Canada, you will see mountains marked here and there. The Prairie Mountain is a one-sided affair. The traveller riding along is imperceptibly rising although he is unconscious of the fact. Therefore, when he finds himself on the edge of a high table, with a steep descent of some 400 feet in front of him, he is naturally astonished. This is how I find myself on the banks of the Assiniboine. Fort Ellice, on the opposite side of the river, is most charmingly situated on the extreme edge of the table-land over-looking the valley, which is two miles wide, and consists of perfectly level and marvellously fertile bottom land, laid out by nature in a well-wooded park. It is only a hundred and fifty miles in a bee line to Winnipeg; yet the waters of the Assiniboine, winding through a great natural meadow, flow seven hundred miles to their junction with the Red River. Sitting on a log at the entrance of the fort, and watching my ponies pasture a mile away in the valley beneath, I fancy I can see a busy city on the bank of the river; steam mills are grinding the wheat which comes from east, west, north and south by road, rail, and river. Others are sawing the lumber which floats from the head waters of the Assiniboine, the Qu'Appelle, and many other streams. Above the city and below it are rich meadows and blooming gardens: while on the fine table-land on each side of the river, and on the beautiful natural terraces, are the villas of the citizens. Neither does this need a very great stretch of the imagination. It may not be on this very spot, but some place hereabouts on the Assiniboine is destined by nature as the site of a city. Here we have an immense country, fertile beyond any description, waiting for a population; and yet we are only on the borders of the great North-West. Water here is abundant, and of a first-rate quality: wood is also abundant; the climate, judging by the crops, is better than in Manitoba..... The river, too, is navigable between Ellice and Winnipeg; Ellice also, seems the natural outlet for that immense region extending to the base of the Rockies, and watered by the South Saskatchewan. With a portage of only a few miles, a canoe can float from the foot of the mountains down the South Saskatchewan and Qu'Appelle to

Ellice, and from thence to Winnipeg. The South Saskatchewan country is perhaps the finest pastoral region in America. On Bow and Belly rivers, stock winter out, and are fat in the spring.

CANADIAN FRUIT.—During the season 1880-1881, upwards of one hundred and fifty thousand barrels of apples were shipped to the port of Liverpool, England. At the fruit show in Boston, U. S., in 1873, the largest ever held, Canada took the first prize for outdoor hardy grapes and plums, and six medals for peaches, pears, &c., in competition with each and all of the States of the American Union.

The New York *Graphic* says:—"Probably the finest show of fruits made at the Philadelphia Centennial Exhibition is made by the Fruit Growers' Association of Ontario." The same journal adds—"The present display occupies the entire north side of the Pomological Building, and is composed of 100 plates of apples, 200 plates of plums, 200 plates of pears, 90 plates of crab-apples, 25 varieties of peaches, 153 plates of grapes, and a variety of nuts. Canada not only carried off silver medals for plums, but also a number of prizes for apples and pears."

ROOTS AND VEGETABLES IN CANADA.—The following certificate has been given by Messrs. Sutton and Son, Seedsmen, of Reading, in reference to the Canadian roots and vegetables exhibited on their stand at the Smithfield Club Cattle Show, London, in December, 1880:

"Reading, 21st Dec., 1880

"We were honoured by the Canadian Government forwarding for exhibition on our stand at the Smithfield Club Cattle Show, 1880, a collection of roots, &c., grown in Manitoba and Ontario, of the following weights when harvested.

| | | | |
|-------------------------|----------|--------------------------|---------|
| Squash | 313 lbs. | Yellow Globe Mangel..... | 60 lbs. |
| Long Red Mangel..... | 75 " | Field Pumpkin..... | 37 " |
| Long Yellow Mangel..... | 65 " | Citron | 30 " |

"These enormous specimens proved objects of great interest to the British farmers, and we believe the weights far exceed any on record."

"(Signed) SUTTON & SONS."

CATTLE TRADE OF CANADA.

The total number of live cattle exported from Canada to Great Britain during the past year, was 40,905, being an increase of 25,896 over last year, as will be seen from the following table:—

| | 1879. | 1880. |
|-------------|--------|--------|
| Cattle..... | 25,007 | 50,905 |
| Sheep | 80,332 | 81,843 |

Contagious cattle diseases are unknown in Canada.

WHEAT FROM MANITOBA. —At the Liverpool Corn Exchange yesterday, June 11th, 1881, a sample of wheat transmitted by the Hudson's Bay Company to Mr. Dyke, the Canadian Government Agent of Liverpool, was carefully examined by several of the leading importers and millers present. These gentlemen pronounced it to be the finest sample of wheat in the market, and, as a consequence, offers of 3d. per bushel more were made for it than for the finest samples of Californian.

WHAT OUR AMERICAN COUSINS THINK OF CANADA.

(From the Philadelphia Press.)

The greatest wheat-growing region in the world is now being opened to settlement. The largest and most productive portion lies within the British Province of Manitoba, in North America. It is sufficiently prolific, when fairly cultivated, to make England independent of the United States for breadstuffs, and to create a powerful rivalry elsewhere. The extent of this enormous and rich British territory is comparatively unknown to the United States. It is estimated at 2,984,000 square miles, whilst the whole of the United States south of the international boundary contains 2,933,000. In the north-western prairies of Canada, wheat often produces 40 to 50 bushels an acre, while in South Minnesota 20 bushels is the average crop, in Wisconsin only 14, in Pennsylvania and Ohio 15. Within five years it is calculated that 4,000,000 acres of this fertile prairie land will be under wheat cultivation. This means an addition to the wheat products of the world of 400,000,000 bushels, being the amount exported last year from America. It is evident that our superiority as a grain-growing country is likely to be seriously threatened by the rich prairie land of this North-western British America, as it will make the mother country entirely independent of foreign supply.

THE HON. J. W. TAYLOR, United States Consul at Winnipeg, stated in a speech delivered there on Thursday, Oct. 2, 1879.

After some remarks concerning the cotton and corn (Indian) growing sections of America, he goes on to say, "There remained the Northern Zone, especially adapted to wheat growing and cattle raising. That included Canada, Wisconsin, Michigan, and partly Minnesota, but three-fourths of the great wheat-producing belt of the Continent lay north of the boundary line of the United States. There the future bread supply of America, and of the old world, too, would be raised. The beef raised in this northern district was found superior to that produced further south."



INFORMATION FOR INTENDING SETTLERS IN CANADA.

When it has been decided to go to Canada, one of the Canadian Steamship Lines, whose advertisements can be found in the newspapers, should be written to, so as to secure a berth. There are vessels sailing from Liverpool, London, Bristol, Glasgow, Londonderry, and Cork.

The fare from any of the places named to Quebec, the port of landing in Canada, depends upon the class of passage that is taken. The saloon fare ranges from £10 to £18; the intermediate is £8 8s.; and the ordinary steerage passage is £6 6s., but agriculturists and domestic servants have the benefit of a lower rate, which can be ascertained from the Steamship offices, or at any of the Government offices, who will also supply the necessary forms to be filled up; children under ten years are charged half-fare, and infants under one year a nominal sum. The fares include a plentiful supply of food, and good sleeping accommodation on board.

To Manitoba *through* tickets are issued by all the Steamship Companies. The fare from London or Liverpool to Winnipeg ranges from £9 5s. assisted steerage, to £28 the saloon passage. Passengers are advised to take advantage of these tickets.

To secure a berth in the steamers it is necessary to send a deposit of £5 for a saloon passage; £1 for an intermediate or a steerage passage.

Twenty cubic feet of Luggage are allowed to *each* saloon passenger, ten to *each* intermediate, and ten to *each* steerage.

Any information or advice as to the most useful things to take to Canada, or upon any other subject, may be obtained at the offices of the Steamship Companies, or at any of the Canadian Government offices.

Steerage passengers have to provide bedding, and certain utensils for use on board, which are enumerated in the bills of the Steamship Companies. They can be purchased at the port of embarkation, or hired for the voyage, from some lines—for a few shillings—leaving bed covering only (a rug or blanket) to be provided for by the passenger.

Government agents are stationed at the principal places in Canada, and they should be inquired for on arrival. They will furnish information as to free grant and other lands open for settlement in their respective provinces and districts, farms for sale, demand for labour, rates of wages, route of travel, distances, expenses of conveyance; receive and forward letters and remittances for settlers, and give any other information that may be required.

Persons with capital should not be in a hurry to invest their money. They can get good interest for it by depositing it in the banks, and can give themselves time to look around before settling. There is good banking accommodation in most of the towns, and letters of credit can be obtained from any of the English Banks.

The classes which may be recommended to emigrate to Canada are as follows:—

1. Tenant farmers, who have sufficient capital to enable them to settle on farms, may be advised to go with safety and with the certainty of doing well. The same remark will apply to any persons who, although not agriculturists, would be able to adapt themselves to agricultural pursuits, and who have sufficient means to enable them to take up farms.

2. Produce farmers and persons with capital, seeking investment.

3. Male and female farm labourers, female domestic servants and country mechanics.

The classes warned against emigration are females above the grade of servants, clerks, shopmen and persons having no particular trade or calling, and unaccustomed to manual labour. To this class Canada offers but little encouragement.

ROOTS AND VEGETABLES IN CANADA.

The following certificate has been given by Messrs. Sutton and Sons, Seedsmen, of Reading in reference to the Canadian roots and vegetables exhibited on their stand at the Smithfield Club Cattle Show in December last.

Reading, Dec. 21st., 1880.

'We were honoured by the Canadian Government forwarding for exhibition on our stand at the Smithfield Club Cattle Show, 1880, a collection of roots, etc., grown in Manitoba and Ontario, of the following weights, when harvested.

| | |
|--------------------------|---------|
| Squash..... | 313 lb. |
| Long Red Mangel..... | 75 " |
| Long Yellow Mangel..... | 65 " |
| Yellow Globe Mangel..... | 60 " |
| Field Pumpkin..... | 37 " |
| Citron..... | 30 " |

These enormous specimens proved objects of great interest to the British farmers and we believe the weights far exceed on record.

'(Signed) SUTTON AND SONS.'

**REGULATIONS FOR THE DISPOSAL OF FREE GRANT,
PRE-EMPTION, AND OTHER PUBLIC LANDS IN
MANITOBA AND THE NORTH-WEST
TERRITORY OF CANADA.**

DEPARTMENT OF THE INTERIOR.

OTTAWA, 25th May, 1881.

Whereas circumstances have rendered it expedient to effect certain changes in the policy of the Government respecting the administration of Dominion Lands, Public Notice is hereby given:—

1. The Regulations of the 14th October, 1879, are hereby rescinded, and the following Regulations for the disposal of agricultural lands are substituted therefor:

2. The even-numbered sections within the Canadian Pacific Railway Belt—that is to say, lying within 24 miles on each side of the line of the said Railway, excepting those which may be required for wood-lots in connection with settlers on prairie lands within the said belt, or which may be otherwise specially dealt with by the Governor in Council—shall be held exclusively for homesteads and pre-emptions. The odd numbered sections within the said Belt are Canadian Pacific Railway Lands, and can only be acquired from the Company.

3. The pre-emptions entered within the said Belt of 24 miles on each side of the Canadian Pacific Railway, up to and including the 31st day of December next, shall be disposed of at the rate of \$2.50 per acre; four-tenths of the purchase money, with interest on the latter at the rate of six per cent, per annum, to be paid in six equal instalments annually from and after the said date, with interest at the rate above mentioned on such portions of the purchase money as may from time to time remain unpaid, to be paid with each instalment.

4. From and after the 31st day of December next, the price shall remain the same—that is, \$2.50 per acre—for pre-emptions within the said Belt, or within the corresponding Belt of any branch line of the said Railway, but shall be paid in one sum at the end of three years, or at such earlier period as the claimant may have acquired a title to his homestead quarter-section.

5. Dominion Lands, the property of the Government, within 24 miles of any projected line of railway recognized by the Minister of Railways, and of which he has given notice in the Official Gazette as being a projected line of railway, shall be dealt with, as to price and terms, as follows:—The pre-emptions shall be sold at the same price and on the same terms as fixed in the next preceding paragraph, and the odd-numbered sections shall be sold at \$2.50 per acre payable in cash.

6. In all Townships open for sale and settlement within Manitoba or North-West Territories, outside of the said Canadian Pacific Railway Belt, the even numbered sections, except in the cases provided for in clause two of these Regulations, shall be held exclusively for homestead and pre-emption, and the odd-numbered sections for sale as public lands.

7. The lands described as public lands shall be sold at the uniform price of \$2 per acre, cash, excepting in special cases where the Minister of the Interior, under the provisions of section 4 of the amendment to the Dominion Lands Act passed at the last Session of Parliament, may deem it expedient to withdraw certain farming lands from ordinary sale and settlement, and put them up for sale at public auction to the highest bidder, in which event such lands shall be put up at an upset price of \$2 per acre.

8. Pre-emptions outside of the Canadian Pacific Railway Belt shall be sold at the uniform price of \$2 per acre, to be paid in one sum at the end of three years from the date of entry, or at such earlier period as the claimant may acquire a title to his homestead quarter-section.

9. Exception shall be made to the provisions of clause 7, in so far as relates to lands in the Province of Manitoba or the North-West Territories, lying to the north of the Belt containing the Pacific Railway lands, wherein a person being an actual settler on an odd-numbered section shall have the privilege of purchasing to the extent of 320 acres of such section, but no more, at the price of \$1.25 per acre, cash; but no Patent shall issue for such land until after three years of actual residence upon the same.

10. The price and terms of payment of odd-numbered sections and pre-emptions, above set forth, shall not apply to persons who have settled in any one of the several Belts described in the said Regulations of the 14th October, 1879, hereby rescinded, but who have not obtained entries for their lands, and who may establish a right to purchase such odd-numbered sections or pre-emptions, as the case may be, at the price and on the terms respectively fixed for the same by the said Regulations.

Timber for Settlers.

11. The system of wood lots in prairie townships shall be continued—that is to say, homestead settlers having no timber on their own lands, shall be permitted to purchase wood lots in area not exceeding 20 acres each, at a uniform rate of \$5 per acre, to be paid in cash.

12. The provision in the next preceding paragraph shall apply also to settlers on prairie sections bought from the Canadian Pacific Railway Company, in cases where the only wood lands available have been laid out on even-numbered sections, provided the Railway Company agree to reciprocate where the only timber in the locality may be found on their lands.

13. With a view to encouraging settlement by cheapening the cost of building material the Government reserves the right to grant licenses from time to time, under and in accordance with the provisions of the "Dominion Lands Acts," to cut merchantable timber on any lands owned by it within surveyed townships; and settlement upon, or sale of any lands covered by such license, shall, for the time being, be subject to the operation of the same.

Sales of Lands to Individuals or Corporations for Colonization.

14. In any case where a company or individual applies for lands to colonize, and is willing to expend capital to contribute towards the construction of facilities for communication between such lands and existing settlements, and the Government is satisfied of the good faith and ability of such company or individual to carry out such undertaking, the odd-numbered sections in the case of lands outside of the Canadian Pacific Railway belt, or of the Belt of any branch line or lines of the same, may be sold to such company or individual at half price, or \$1 per acre, in cash. In case the lands applied for be situated within the Canadian Pacific Railway Belt, the same principle shall apply so far as one-half of each even-numbered section is concerned—that is to say, the one half of each even-numbered section may be sold to the company or individual at the price of \$1.25 per acre, to be paid in cash. The company or individual will further be protected up to the extent of \$500, with six per cent, interest thereon till paid, in the case of advances made to place families on homesteads, under the provisions of section 10 of the amendments to the Dominion Lands Act hereinbefore mentioned.

15. In every such transaction, it shall be absolutely conditional:—

(a.) That the company or individual, as the case may be, shall in the case of lands outside of the said Canadian Pacific Railway Belt, within three years of the date of the agreement with the Government, place two settlers on each of the odd-numbered sections, and also two on homesteads on each of the even-numbered sections embraced in the scheme of colonization.

(b.) That should the land applied for be situated within the Canadian Pacific Railway Belt, the company or individual shall, within three years of the date of agreement with the Government, place two settlers on the half of each even-numbered section purchased under the provision contained in paragraph 14, above, and also one settler upon each of the two quarter sections remaining available for homesteads in such section.

(c.) That on the promoters failing within the period fixed, to place the prescribed number of settlers, the Governor in Council may cancel the sale and the privilege of colonization, and resume possession of the lands not settled, or charge the full price of \$2 per acre, or \$2.50 per acre, as the case may be, for such lands, as may be deemed expedient.

(d.) That it be distinctly understood that this policy shall only apply to schemes for colonization of the public lands by Emigrants from Great Britain or the European Continent.

Pasturage Lands.

16. The policy set forth as follows shall govern applications for lands for grazing purposes, and previous to entertaining any application, the Minister of the Interior shall satisfy himself of the good faith and ability of the applicant to carry out the undertaking involved in such application.

17. From time to time, as may be deemed expedient, leases of such Townships, or portions of Townships, as may be available for grazing purposes, shall be put up at auction at an upset price to be fixed by the

Minister of the Interior, and sold to the highest bidder—the premium for such leases to be paid in cash at the time of the sale.

18. Such leases shall be for a period of twenty-one years, and in accordance otherwise with the provisions of section eight of the Amendment to the Dominion Lands Act passed at the last Session of Parliament, hereinbefore mentioned.

19. In all cases, the area included in a lease shall be in proportion to the quantity of live stock kept thereon, at the rate of ten acres of land to one head of stock; and the failure in any case of the lessee to place the requisite stock upon the land within three years from the granting of the lease, or in subsequently maintaining the proper ratio of stock to the area of the leasehold, shall justify the Governor in Council in cancelling such lease, or in diminishing proportionally the area contained therein.

20. On placing the required proportion of stock within the limits of the leasehold, the lessee shall have the privilege of purchasing, and receiving a patent for, a quantity of land covered by such lease, on which to construct the buildings necessary in connection therewith, not to exceed five per cent of the area of the leasehold, which latter shall in no single case exceed 100,000 acres.

21. The rental for a leasehold shall in all cases be at the rate of \$10 per annum for each thousand acres included therein, and the price of the land which may be purchased for the cattle station referred to in the next preceding paragraph, shall be \$1.25 per acre, payable in cash.

Payments for Lands.

22. Payments for public lands and also for pre-emptions may be in cash, or in scrip, or in police or military bounty warrants, at the option of the purchaser.

23. The above provisions shall not apply to lands valuable for town plots, or to coal or other mineral lands, or to stone or marble quarries, or to lands having water power thereon; and further shall not, of course, affect Sections 11 and 29 in each Township, which are Hudson's Bay Company lands.

J. S. DENNIS,

Deputy Minister of the Interior.

LINDSAY RUSSELL,
Surveyor-General.